SABER

DVR MANUAL

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Introduction

Thank you for purchasing a Saber DVR System. This manual will show you how to set up your DVR system and explain each function in detail.

Important Information

For optimal performance of your system, it is important to follow these recommendations.

- Divide your hard disk into two partitions at least (e.g.: C and D). The first partition is used to install Windows OS and system software, the others are for storing record files. Each partition should not be larger than 2.5TB.
- Please use an appropriate motherboard and display card. Contact Saber at 800-506-1482 if you have any questions.

Recommend System Environment

Chipset: Intel 875PE, 915P, 945P, 965P, Intel 3, Intel 4, Intel 5 series.

Motherboard: Intel: D915/945PCY, D865PERL, G31, P31, P35, P43, P45, P55.

Asus: P4P800SE, P5P800 MSI: 865PE Neo2-F, 915/925/945;

Gigabit: GA-865GME, GA-945PL-G etc

Video Card: ATI Rodeon 9250 128MB, ATI Radeon 9550 128MB, ATI X500, X550, X700, HD5000 Series, HD 6000 Series

Processor: Intel Pentium 4 2.4GHz or better

Memory: 2GB minimum with Windows 7, 1GB minimum with Windows XP

These are the minimum requirements to run the DVR system. If you want more camera channels, IP cameras, higher quality and faster response time, you'll need higher performance components.

Note: Intel Series 6 chipset motherboards are incompatible because they lack support for PCI cards with PCI bridge connection.

Chapter 1 Start up and Main Interface

1.1 Preparation & Uninstallation

1.1.1 Preparation

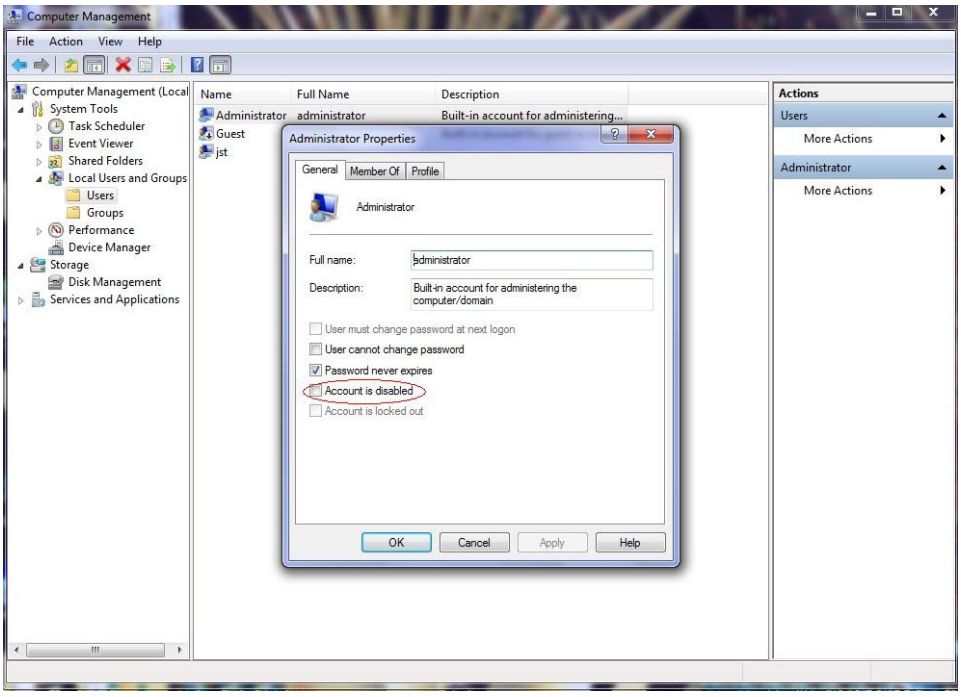
Before you run Hybrid NDVR system, please check the following:

1. All connectors are firmly connected;
2. Install the DVR card drivers correctly. For detailed information, please refer to Appendix C: Driver Installation Manual;
3. Set your monitor resolution to 1024*768 pixels or higher.

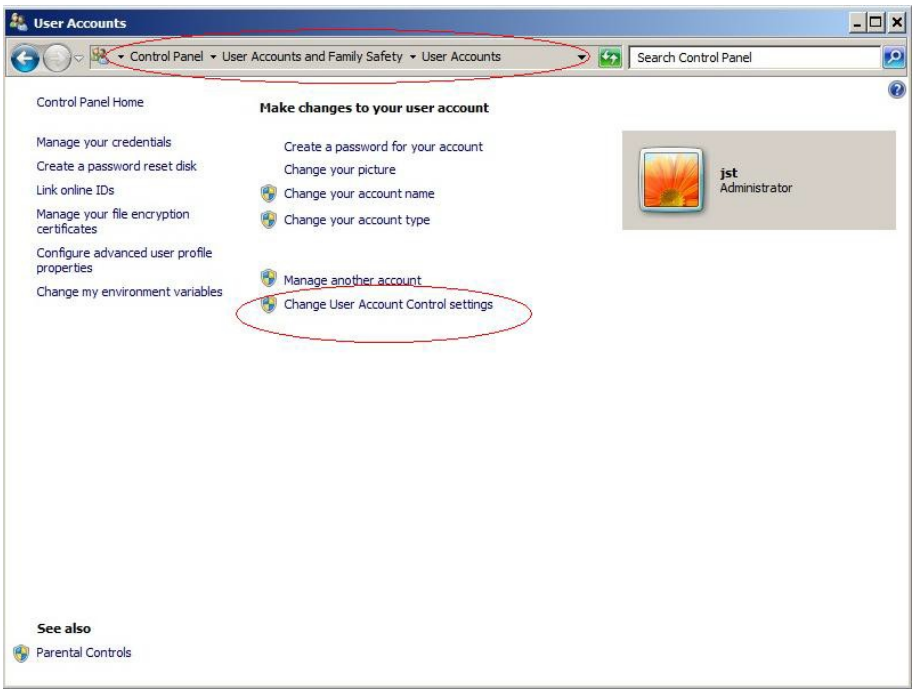
To set up your DVR System in Windows 7:

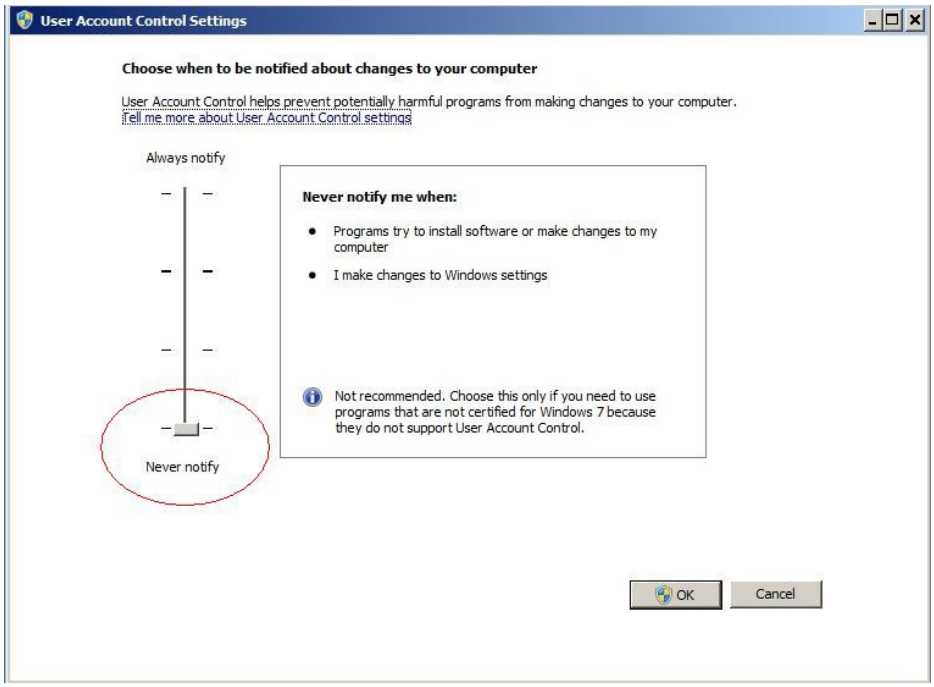
1. Make sure you're logged on as an "administrator". First, single-right-click “Computer” icon->Manage->Local Users and Groups->Users->Administrators->not to check “Account is disabled”.

Then, switch user or log off to log in with Administrator.



2. Adjust User Access Controls settings to "Never notify", shown in the below pictures:




User Account Control Settings
Choose when to be notified about changes to your computer
User Account Control helps prevent potentially harmful programs from making changes to your computer.
Tell me more about User Account Control settings
Always notify
Never notify
Never notify me when:
Programs try to install software or make changes to my computer
I make changes to Windows settings
Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do not support User Account Control.
OK
Cancel

For Windows 7 64-bit, you have to download and install two patches: KB978637 and KB976264. You should download them from MSDNAA manually. These patches can't be installed automatically when the system updates.

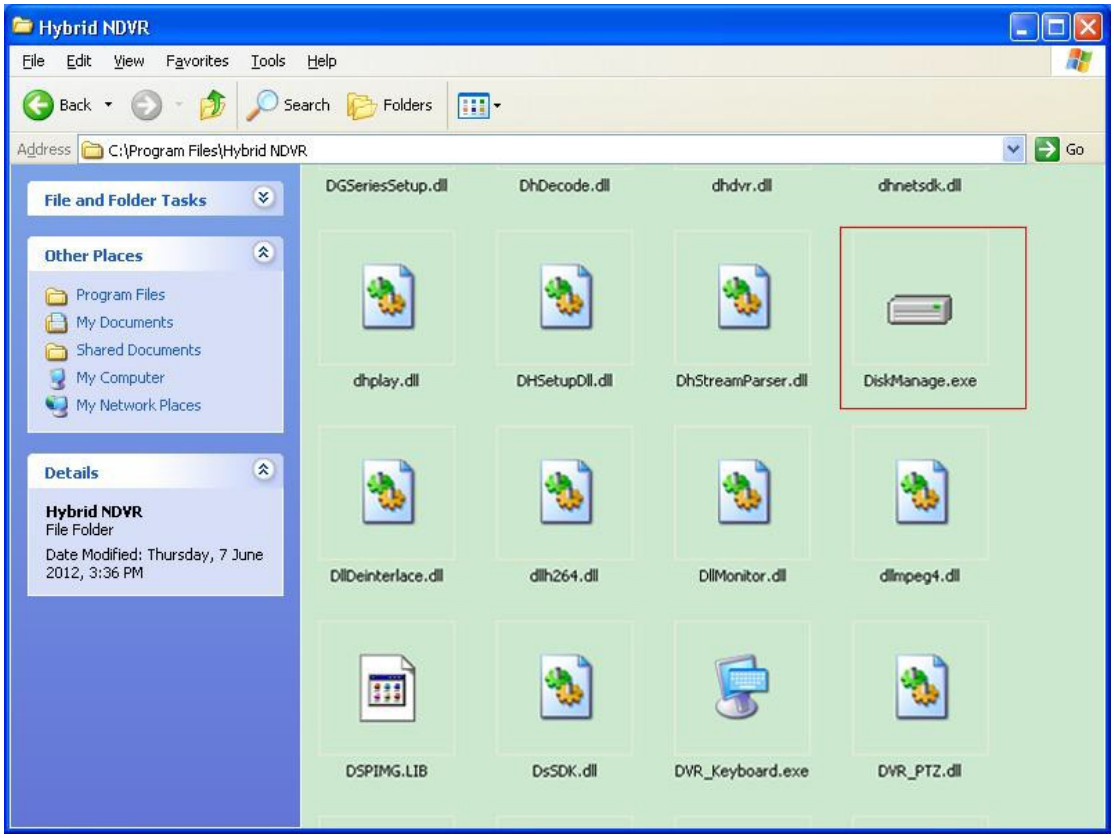
1.1.2 Uninstallation

When you want to change this version to another one, you should uninstall it. Click "Start > All programs > Hybrid NDVR server > Uninstall Hybrid NDVR" to remove it.

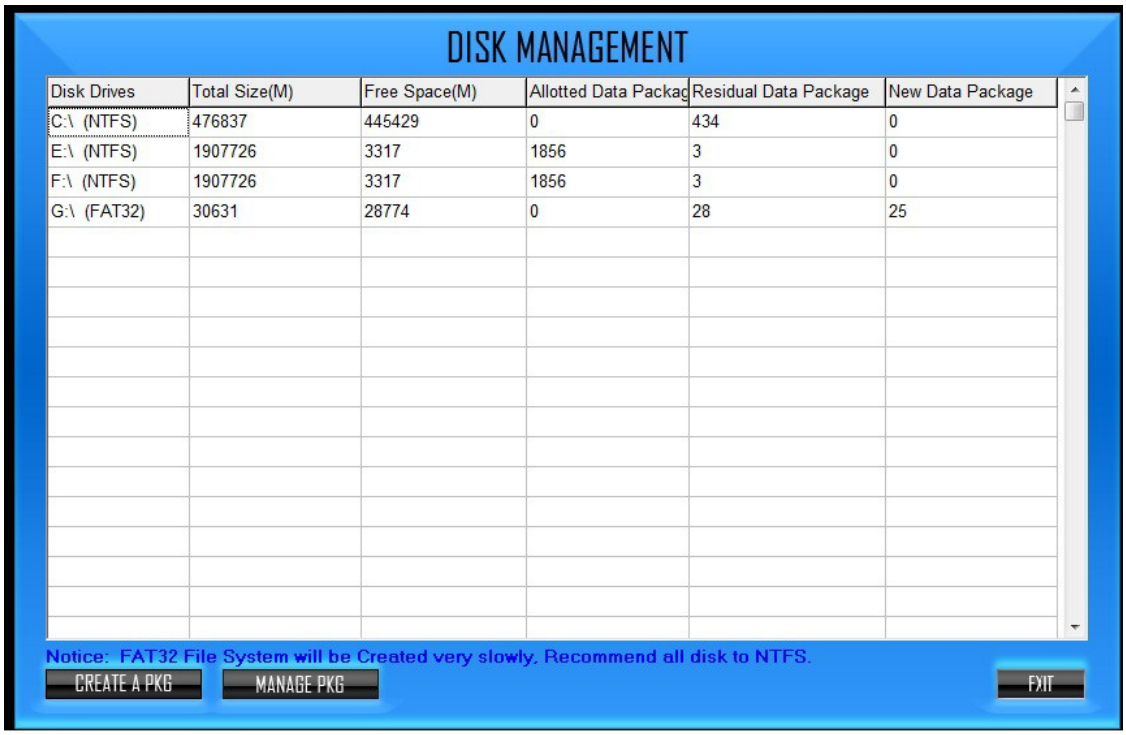
1.2 Disk Management

After the DVR Software has been installed, Used the Disk Management application to allocate hard drive space for DVR recordings.

You can directly run the Diskmanage.exe under the installation directory.



You can also access the Disk Management application by clicking "Start > All programs > Hybrid NDVR > Disk Management"


DISK MANAGEMENT
Disk Drives
Total Size(M)
Free Space(M)
Allotted Data Packag
Residual Data Package
New Data Package
C:\ (NTFS) 476837 445429 0 434 0
E:\ (NTFS) 1907726 3317 1856 3 0
F:\ (NTFS) 1907726 3317 1856 3 0
G:\ (FAT32) 30631 28774 0 28 25
Notice: FAT32 File System will be Created very slowly, Recommend all disk to NTFS.
CREATE A PKG
MANAGE PKG
EXIT

【Disk Drives】:Display the disk and its format.

【Total Size(M)】:Display the total size of the disk.

【Free Space(M)】:Display the total free space of the disk, which is the maximum space can be assigned for recording.

【Allotted Data Package】:Display the number of data package, which has been assigned for recording before.

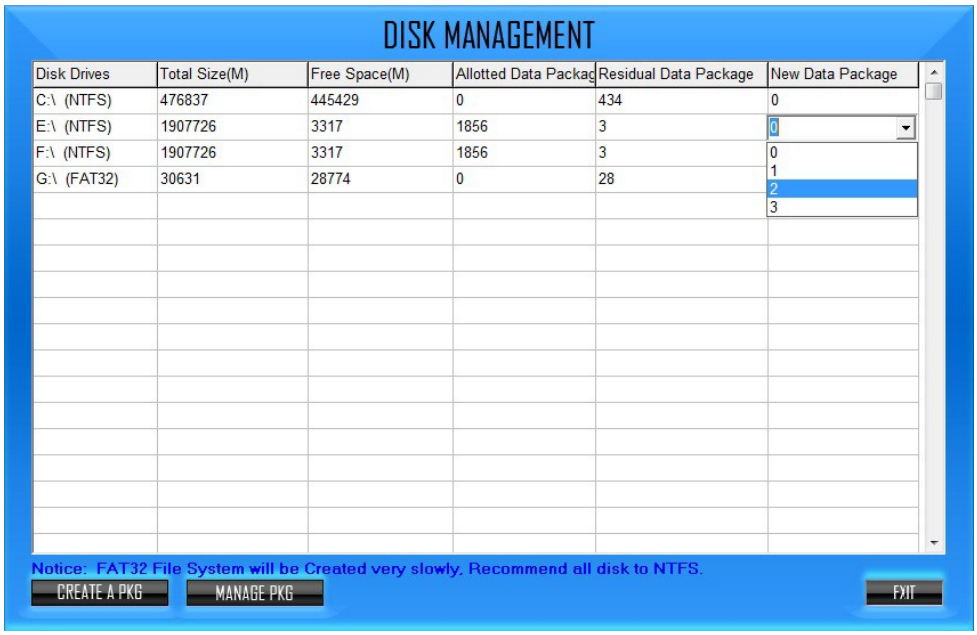
【Residual Data Package】:Display the number of data package that can be assigned for recording.

【*Residual Data Package*】 = 【*Free Space(M)*】*/256*

【New Data Package】:Select the number of the data package that user want to create for recording.

【*New Data Package*】 ≤ 【*Residual Data Package*】

1.2.1 Create Package



Users can select the number of data packages for each disk in the drop-down list. Press

button to create a data package and index for recording. The software will calculate the rest of the hard drive space automatically.

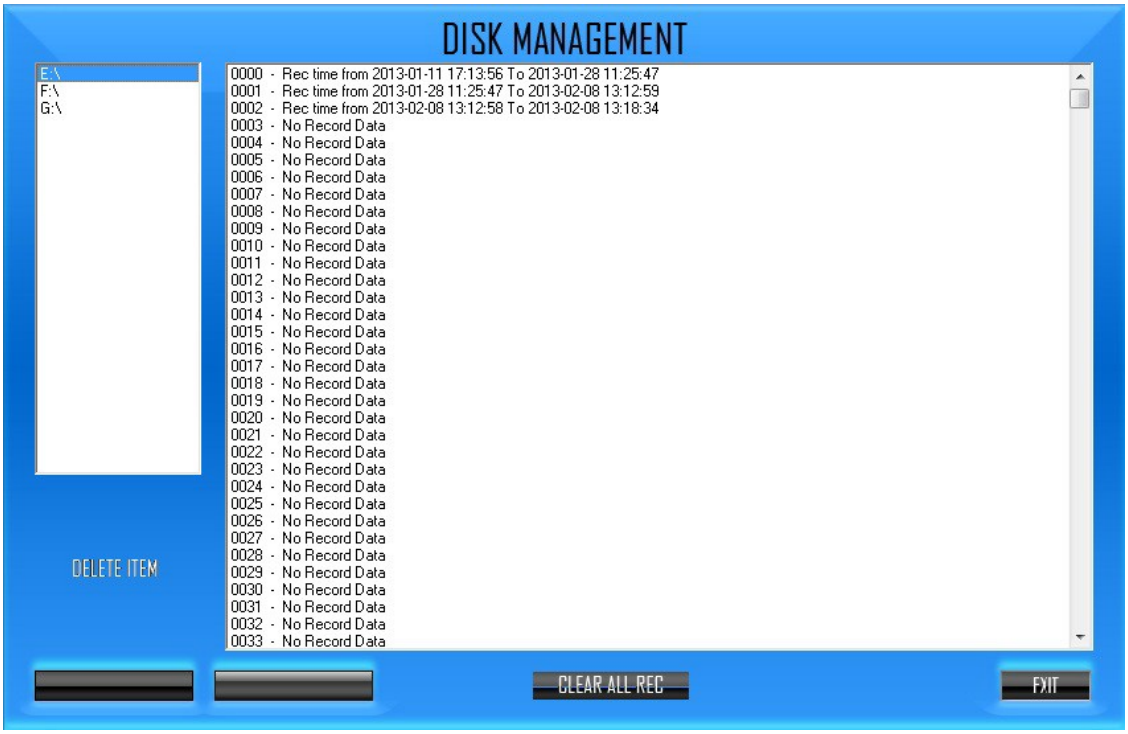
Note:

- Format your hard drive with Disk Management BEFORE attempting to record. Each package for recording (Recdata****.mp4) is 256MB, and it is associated with its index file (RecIndex****.inx). They must work together, or
- Recordings won't play back correctly. When footage is deleted manually, be sure to delete BOTH the .mp4 file, and it's corresponding .inx file.
- By default, the 'C' Drive and 'D' Drive are used for software installation, so Disk Management won't format them (default: 【New Data Package】= 0) unless you select them and format them manually.
- Windows will display a warning when hard drive space is low. Disk Management will leave 3 packages (about 256*3=768 MB) for disks (except C and D) to avoid this. That is to say, the default value of disks (except C and D):
  - ***【New Data Package】 = 【Residual Data Package】-3***
- It will take a lot more time to create packages that are formatted using Fat 32 instead of NTSC
- Each hard drive used for recording must be less than 2.5T, or the DVR Software may not function properly.

1.2.2 Manage Package

After a data package is created, click

to delete the data package manually. After that, the hard drive space will be released, and made available for new recordings; user can assign them for recording again.

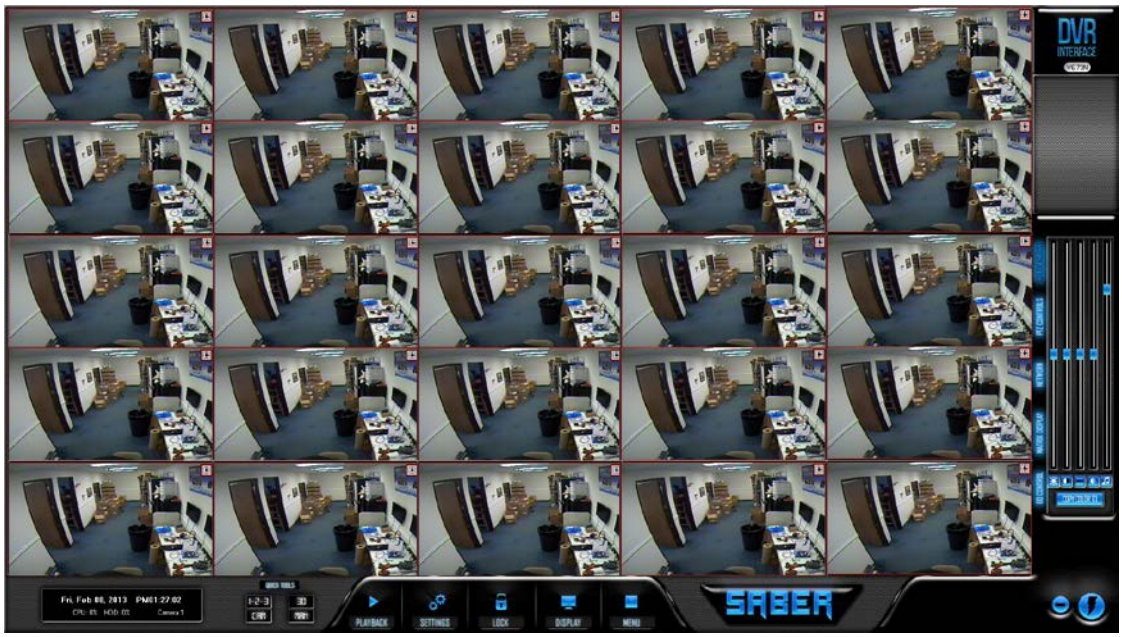

DISK MANAGEMENT
E:\
F:\
G:\
0000 - Rec time from 2013-01-11 17:13:56 To 2013-01-28 11:25:47
0001 - Rec time from 2013-01-28 11:25:47 To 2013-02-08 13:12:59
0002 - Rec time from 2013-02-08 13:12:58 To 2013-02-08 13:18:34
0003 - No Record Data
0004 - No Record Data
0005 - No Record Data
0006 - No Record Data
0007 - No Record Data
0008 - No Record Data
0009 - No Record Data
0010 - No Record Data
0011 - No Record Data
0012 - No Record Data
0013 - No Record Data
0014 - No Record Data
0015 - No Record Data
0016 - No Record Data
0017 - No Record Data
0018 - No Record Data
0019 - No Record Data
0020 - No Record Data
0021 - No Record Data
0022 - No Record Data
0023 - No Record Data
0024 - No Record Data
0025 - No Record Data
0026 - No Record Data
0027 - No Record Data
0028 - No Record Data
0029 - No Record Data
0030 - No Record Data
0031 - No Record Data
0032 - No Record Data
0033 - No Record Data
DELETE ITEM
CLEAR ALL REC
EXIT

You can delete ALL recordings by clicking “Clear All Record”. You can also delete the files according to time or camera number.

1.3 Start up

Double click shortcut icon

to run Hybrid NDVR Server. The main interface is pictured below:



Main interface of Hybrid NDVR Server

Note:

1) If the DVR Software is launched without a valid license for compression cards or IP products, it will run in trial mode; Contact Saber at 800-506-1482 to purchase the full version.
2) Hybrid NDVR Server supports several different size of main interface: 1024*768 pixels, 1280*768 pixels, 1280*1024 pixels, 1366*768 pixels, 1440*900 pixels, 1600*900 pixels, 1680*1050 pixels and 1920*1080 pixels. A resolution of at least 1024*768 is required to run the DVR Software.

1.4 Main Interface

1.4.1 Show Tips

- When the mouse moves closely or stops above a button, a text tip will be

- shown to interpret its function immediately;
- Zoom in/out video image: Left-Double-Click a camera window to zoom in/out video image (Or press F11 on the keyboard);
- System will detect cards and read the total channel number automatically, and the corresponding serial number of active will be displayed on information display panel.
- Recording status:

-- The system is recording continuously;

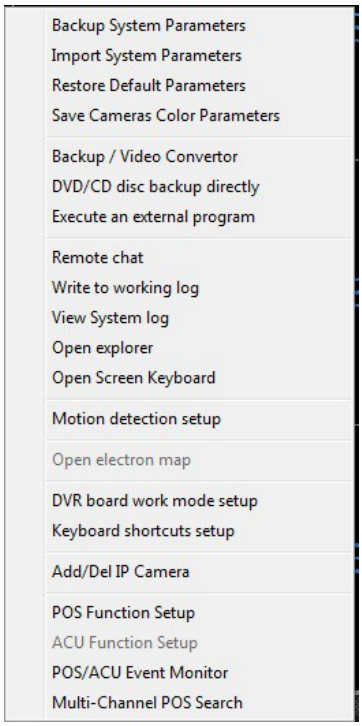
-- The system is recording manually;

-- The system is recording in motion detection alarm;

-- The system is recording in event alarm.

1.4.2 Screen Menu

Users can Single-Right-Click image area (compression card camera windows, IP product camera windows and unused windows) to pop up the screen menu pictured below:



1. Full Screen

Select "**Full Screen Display**" to view image area in full screen (or press **F12** on the keyboard). To revert to original size, Single-Right-Click within the image area and select "**Restore Display**".

To enlarge a selected window, Double-Left-Click inside the window area. Double-Left-Click again to restore original size. F11 on the keyboard will perform the same function.

2. Close / Open Image Display

Select ***Close/Open Image Display*** (IP cameras included) to close/open the footage displayed in current window.

The camera will continue to record even if it's not displayed.

3. Instant Playback

Single-Right-Click inside a camera window and select ***Instant playback*** (IP cameras included). Choose a time from the submenu, and the window will play back footage based on your selection (E.g. you select 1min, the window will play back previous 1 minute of footage).

Footage from ANY camera can be viewed in a window that is not being used (window with black background----If window has "No Video Loss" displayed, it cannot be used for this function): For instance, the first window may be displaying live footage from Camera 1. It is possible to use the Instant Playback feature to view recorded footage from Camera 1 in a separate window, while continuing to view the live footage in the first window: Select a window that is not being used, and Single-Right-Click inside of it to select "Instant playback". Choose a time, and a selection box will display, allowing you to choose a camera. Select a camera, and the window will display the recorded footage chosen by the user.

Windows displaying recorded footage will have a yellow border to distinguish them from windows displaying LIVE footage.

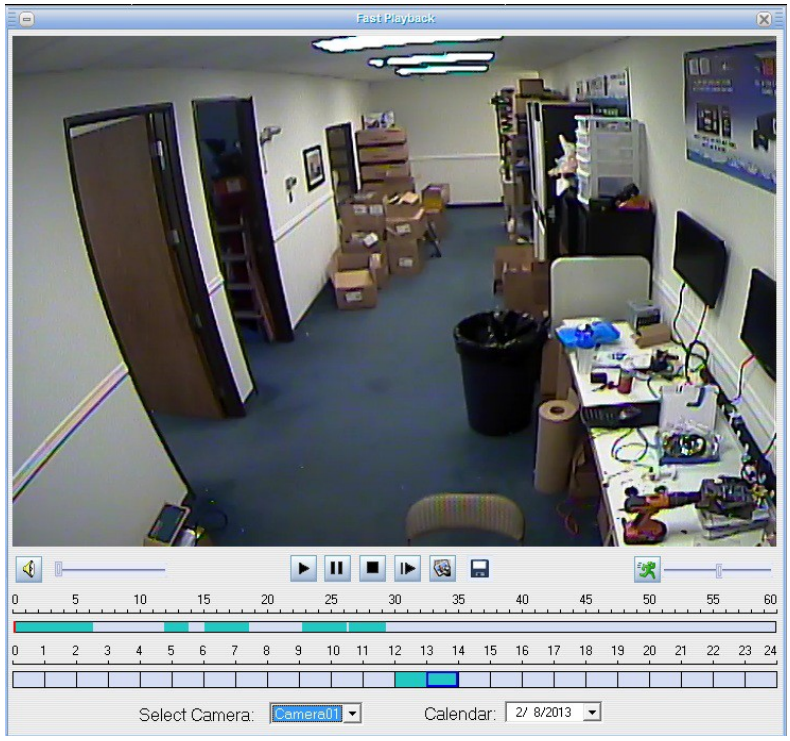
During instant playback, press the **Spacebar** to **play/pause.** Use the left and right arrow keys (← →) to play next/previous frame. Use the up and down keys (↑ ↓) to speed up/slow down playback speed. Press left or right arrow keys to return to normal speed.

Single-Right-Click inside any window playing back recorded footage and select **End playback** to stop instant playback.

Single-Right-Click inside any window playing back recorded footage and choose ***Review playback*** to rewind to the beginning of the segment.

4. Fast Playback

Right click on a window on the Main Screen, and select Fast Playback in the menu that pops up.



The window pictured above will overlay the screen. Any camera can be selected, along with a date. In the grid at the bottom, green boxes will display within any hour that has footage recorded. Each button works as follows:

Button Description

Play, Pause, Stop

Next Frame

Play Speed Control: Drag the slider bar to the left to slow down or to the right to speed up.

Grab Picture: Takes a screen grab and saves it.

Save Record Data: Press this button to begin to save record data and press it again to end.

5. Start Alarm Pop up

Single-Right-Click video image area in main interface and select “Start alarm popup” after you set “Alarm camera popup interval” in System Setup, otherwise, it can’t be selected with gray. After that when there is a motion

detection alarm (set in PTZ & Linkage Setup and Motion Detection Setup) or an alarm triggered by sensor (set in Sensor Setup), system will display alarm cameras in sequence. When you want to end this function, you can Single-Right-Click video image area and select “Pause alarm popup”.

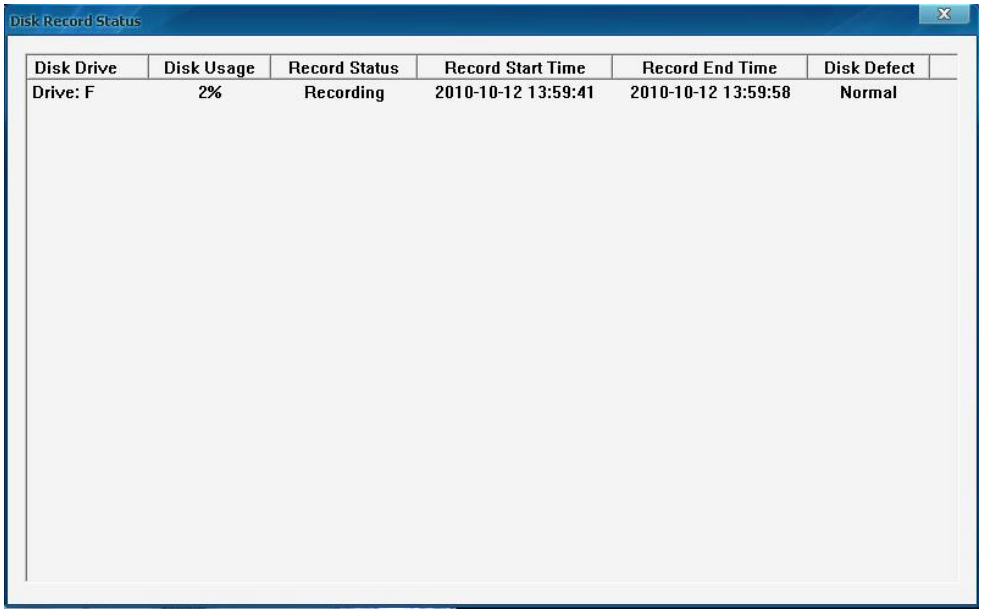
This function is also suitable for IP camera.

Note:

The five functions as above are suitable for both of the compression card camera and the IP camera.

6. Disk Record Status

Right click on a window on the Main Screen, and select Disk Record Status in the menu that pops up.

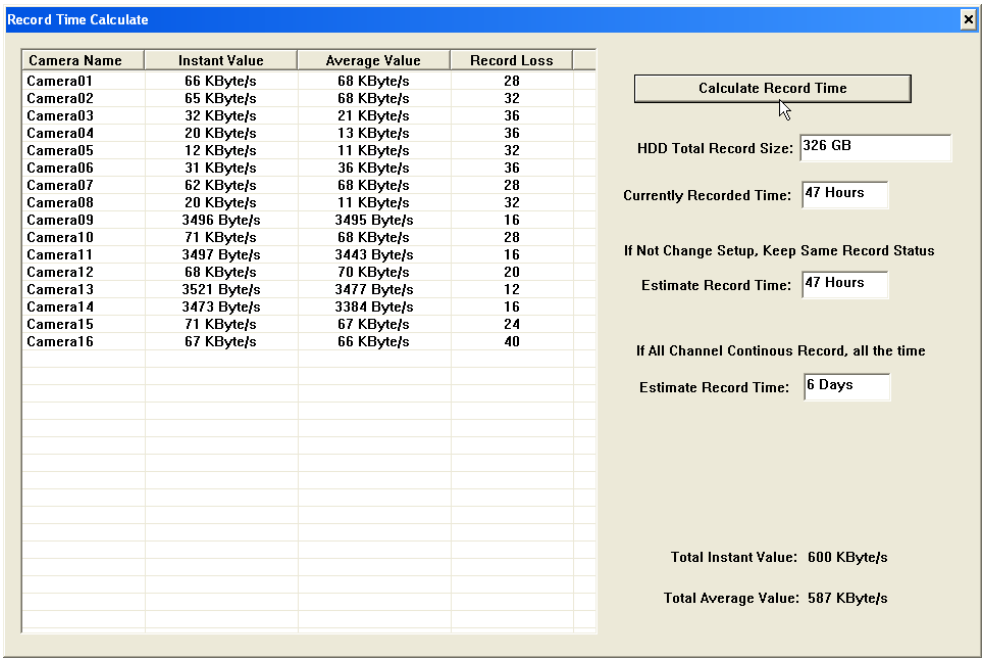


The window above will display, detailing the location of the recoded footage, the percentage of the disk being used, record status, record start and end time, and whether or not the disk is defective.

7. Record Time Calculate

Right click on a window on the Main Screen, and select Record Time Calucate in the menu that pops up.

A window will pop up displaying the size of all recorded footage, time left for recording on the hard drive, and the number of days left before hard drive space runs out.


Record Time Calculate
Camera Name | Instant Value | Average Value | Record Loss
Camera01 66 KByte/s 68 KByte/s 28
Camera02 65 KByte/s 68 KByte/s 32
Camera03 32 KByte/s 21 KByte/s 36
Camera04 20 KByte/s 13 KByte/s 36
Camera05 12 KByte/s 11 KByte/s 32
Camera06 31 KByte/s 36 KByte/s 36
Camera07 62 KByte/s 68 KByte/s 28
Camera08 20 KByte/s 11 KByte/s 32
Camera09 3496 Byte/s 3495 Byte/s 16
Camera10 71 KByte/s 68 KByte/s 28
Camera11 3497 Byte/s 3443 Byte/s 16
Camera12 68 KByte/s 70 KByte/s 20
Camera13 3521 Byte/s 3477 Byte/s 12
Camera14 3473 Byte/s 3384 Byte/s 16
Camera15 71 KByte/s 67 KByte/s 24
Camera16 67 KByte/s 66 KByte/s 40
Calculate Record Time
HDD Total Record Size: 326 GB
Currently Recorded Time: 47 Hours
If Not Change Setup, Keep Same Record Status
Estimate Record Time: 47 Hours
If All Channel Continous Record, all the time
Estimate Record Time: 6 Days
Total Instant Value: 600 KByte/s
Total Average Value: 587 KByte/s

8. OSD (On Screen Display) Adjustment

Right click on a window on the Main Screen, and select OSD Adjustment Status in the menu that pops up. The position of the OSD (Date and Channel Name) can be adjusted here (IP Camera does not have this function; You can set the OSD position in IP Camera setup remotely).

Drag the time or channel name where you'd like, then press the SAVE button to save it or press the RESUME button to revert to default position.

9. Send to TV Monitor

When there is an Enterprise or HD-SDI card installed, additional video output port(s) will be available.

Right click on a window on the Main Screen, and select Send To TV Monitor in the menu that pops up. Choose which monitor to send the footage to in the first drop-down menu. In the second drop-down, choose how long you'd like the footage to display on the selected monitor. "Keep" will display the footage on the selected monitor until you manually change the setting. The rest of the settings send the footage for the specified period of time indicated.

Send to TV Monitor is also available to IP devices.

10. IP Camera Setup

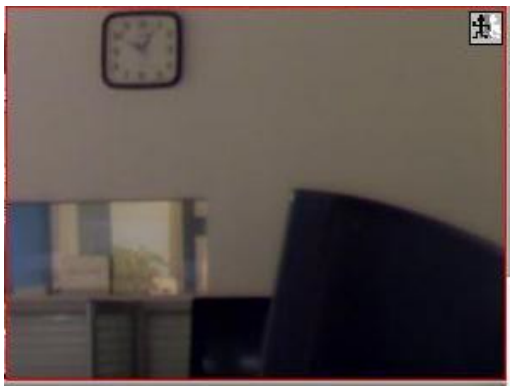
Only available when you right- click inside the window of a n IP camera. More info here: IP Camera Setup.

11. Audio Chat to IP Cam

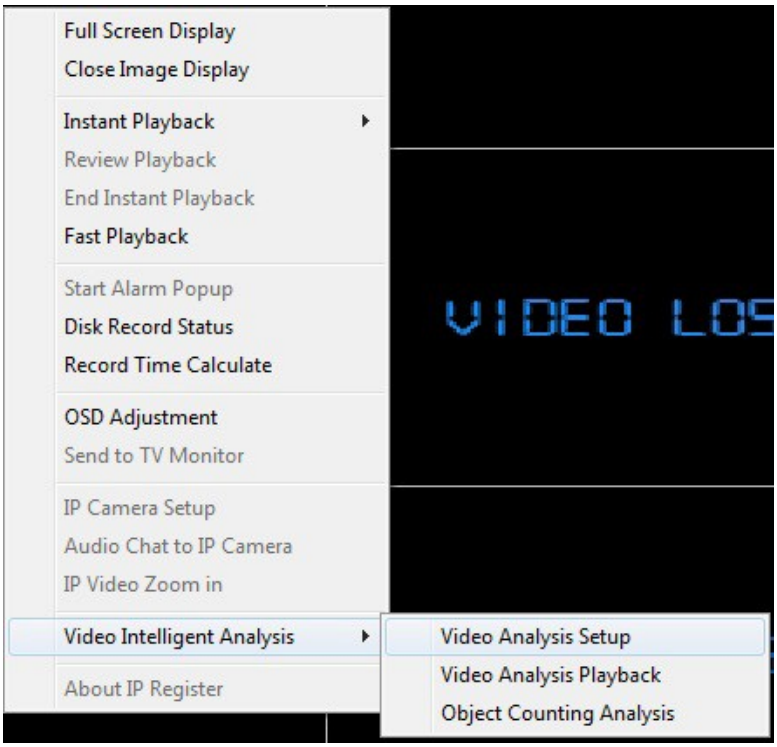
Right-click inside the window of an IP camera and select “Audio Chat to IP Cam" function to chat with the IP Camera (microphones must be connected on both DVR Server and Client):

12. IP Video Zoom in

Right-click inside the window of an IP camera and select “IP Video Zoom In". Left-click and drag to draw a rectangle around the area you'd like to zoom in to. When you release the mouse button, the footage will zoom in to the selected area. Right-click inside the window to return to the original size.



13. Video Intelligent Analysis



Intelligent Video Analysis functions include:

- Face Detection
- Intrusion Detection
- Movement Direction Detection
- Unattended Object Detection
- Missing Object Detection
- Tripwire Detection
- Object Counting
- Smoke and Fire Detection

Each Intelligent Video Analysis function can be searched in Video Analysis Playback. Please refer to Intelligent Video Analysis Manual for details.

14. About IP Register

Select this option to get your register info:

The window will display the serial number of unregistered Saber DVR Cards. The server name will only display when all installed DVR cards are registered.

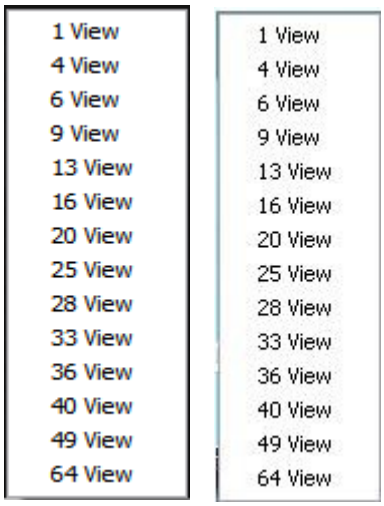
1.4.3 Interface Description

1. Partition Mode

On the bottom of the Main Screen, press

button to set the Partition Mode of the main screen. The available partitions are determined by the total channels available on the DVR cards installed. You can select a suitable partition based on the number of cameras connected.

The partition mode adjusts based on screen resolution. When the screen resolution is set to 1280*768, the default partition mode will be different from a screen resolution of 1920*1080.



2. Videos Play in Sequence Mode Switch

Press 1-2-3 button to rotate all available cameras in the current partition mode. For example, if the the partition mode has been set to 16 view, but there are 48 cameras available, changing to sequence mode will display the first 16 cameras for a specified period of time, then switch to the second set of 16 cameras, then the third, and finally fourth, before returning to the first 16 cameras. This cycle will continue until the Sequence Mode button is pressed again to disable the function. The Camera Sequencing Interval must be enabled in System Setup for this function to work properly.

3. Emergency Recording Button

Press 30 button to trigger 30 seconds of recording for the selected window-----even if the camera has been set to record in a different mode.

4. Image Capture

Press CAM button to save an image of the selected window to local disk for reviewing or printing. The first time this function is used, you will be asked for a file name and location to save the image to. After that, images will automatically save to the location you chose.

5. Manual Record Switch

Press

button to record manually for selected window and press it again to stop recording.

6. Information Display Panel

This panel displays the current date, current time, disk usage and description of the selected camera.

Note:

Disk usage will be changed to record days when data packages are full and new data is overwriting old data.

7. Local Setup Submenu

Press

button to access Local Setup.

8. Playback

Press

button to enter Playback to search local video/audio data.

9. System Lock

Press

button to prevent unauthorized users from accessing the DVR software. Click this button again for the unlock dialog box. Input User ID and password to unlock it.

Default User ID is “admin”, no password.

Note:

If the Hybrid NDVR system is not configured as User Manage Mode, the lock button will be unusable and allow anyone access (even in client program, user name and password will be useless).

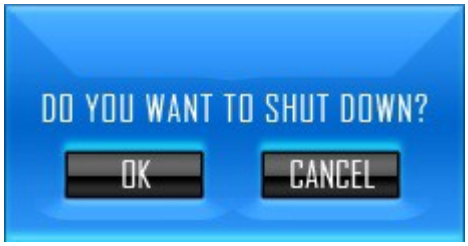
10. Minimize Button

Press button to minimize the main window (or press WIN + Z on keyboard).

11. Exit Program

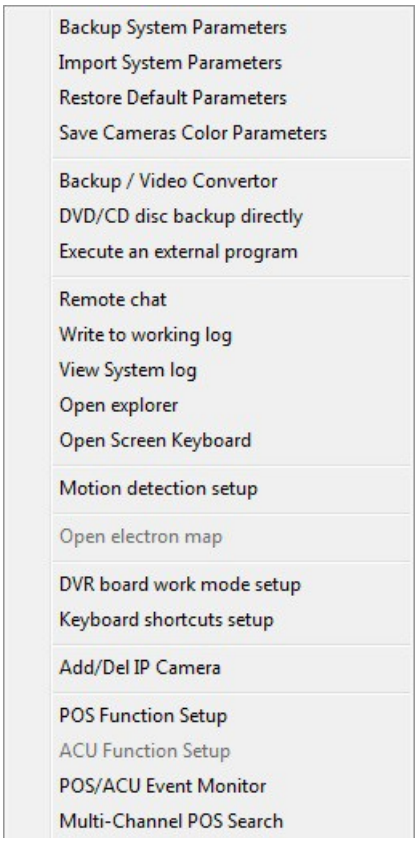
Press button to exit program.

After clicking this button, a dialog will be displayed. Click “OK” to quit Hybrid NDVR system.



1.4.4 System Menu

Press the Menu button to view the System Menu pictured below:



1. Backup / Import System Parameters

Select this function to export/import system configuration parameters. This is important to do when you are reloading the DVR Software or upgrading. Give the backup a name, and press "Save." If you ever have to reinstall or upgrade your DVR Software, press "Import System Parameters", and choose the file you backed up previously. All your previous parameters will be restored.

2. Restore Default Parameters

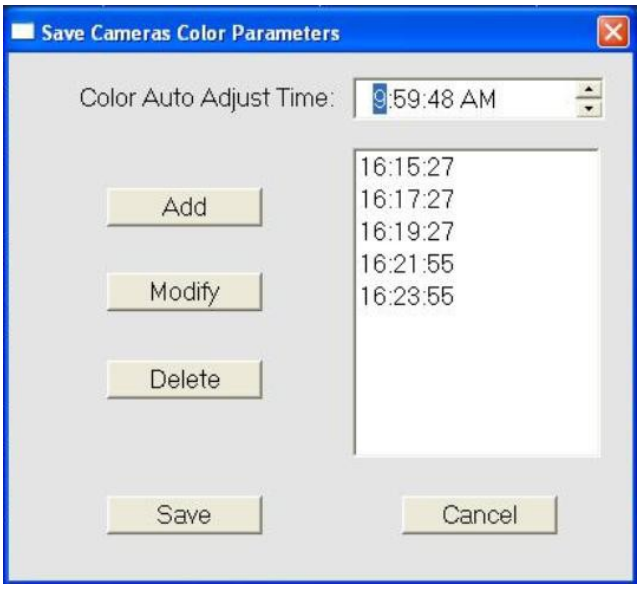
Select this function to restore the default parameters of system.

3. Backup / Video Convertor

Please refer to our Backup User Manual for details.

4. Save Cameras Color Parameters

Saves camera color settings. These settings can be loaded and unloaded at different times:



Step 1. Set the Brightness / Contrast / Hue / Saturation for cameras.

Step 2. Press "Menu" and select “Save Cameras Color Parameters”. Your settings will be saved.

Step 3. Set the “Color Auto Adjust Time"----This is the time that the settings from Step 2 will be applied to all cameras. Click "Add". Click "Save." Your color settings will now load at the time you specified

You can add as many "Color Auto Adjust Times" as you like. Simply repeat steps 1 thru 3.

5. DVD / CD Disc Backup Directly

Select this function to burn video data to DVD or CD, which is the same as burn DVD/CD in Playback.

6. Execute an External Program

Select this function to execute an external program.

7. Remote Chat

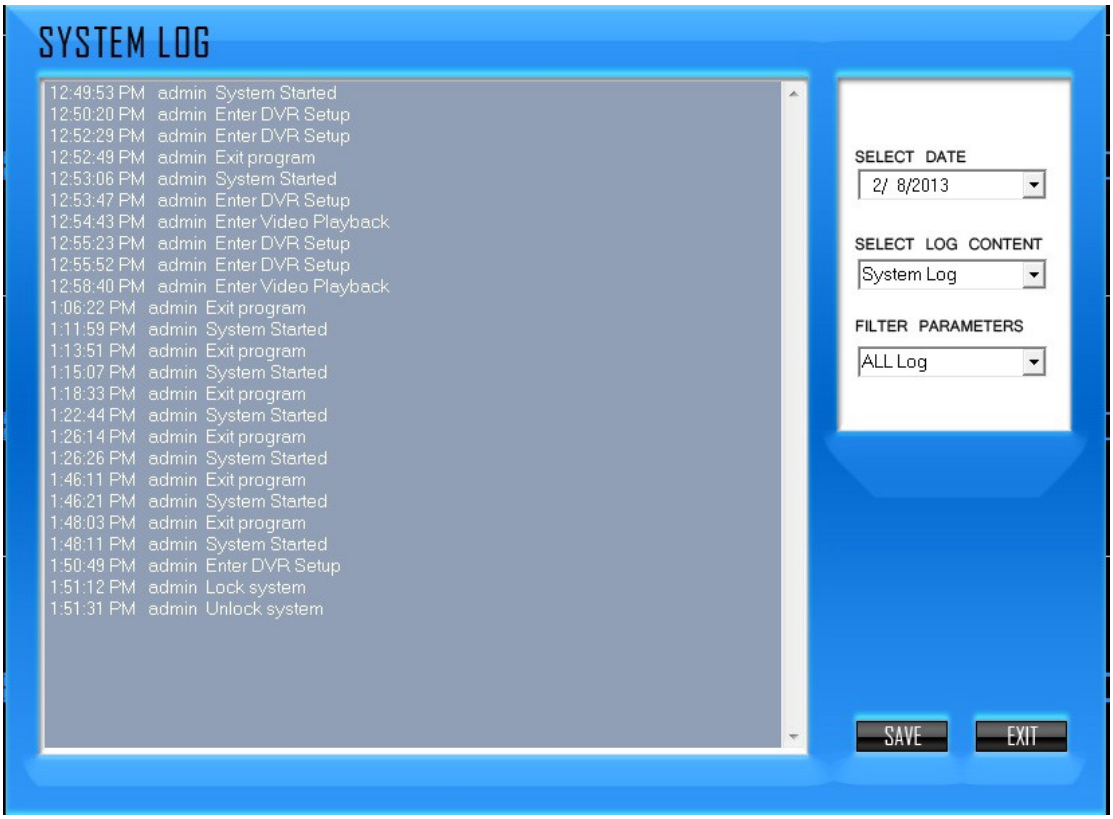
Select this option to connect a remote Client or Server for live chatting via IP address, but please make sure audio card and Microphone have been installed/connected.

8. Write to Working Log

This is useful to record events that occur during recording.

9. View System Log

Displays all functioned performed by the DVR Software on a selected date. Users can filter results by content: operation, prompt, alarm and work log.


SYSTEM LOG
12:49:53 PM admin System Started
12:50:20 PM admin Enter DVR Setup
12:52:29 PM admin Enter DVR Setup
12:52:49 PM admin Exit program
12:53:06 PM admin System Started
12:53:47 PM admin Enter DVR Setup
12:54:43 PM admin Enter Video Playback
12:55:23 PM admin Enter DVR Setup
12:55:52 PM admin Enter DVR Setup
12:58:40 PM admin Enter Video Playback
1:06:22 PM admin Exit program
1:11:59 PM admin System Started
1:13:51 PM admin Exit program
1:15:07 PM admin System Started
1:18:33 PM admin Exit program
1:22:44 PM admin System Started
1:26:14 PM admin Exit program
1:26:26 PM admin System Started
1:46:11 PM admin Exit program
1:46:21 PM admin System Started
1:48:03 PM admin Exit program
1:48:11 PM admin System Started
1:50:49 PM admin Enter DVR Setup
1:51:12 PM admin Lock system
1:51:31 PM admin Unlock system
SELECT DATE
2/ 8/2013
SELECT LOG CONTENT
System Log
FILTER PARAMETERS
ALL Log
SAVE
EXIT

If the computer keyboard is locked, users can use the onscreen keyboard described below.

11. Open Screen Keyboard

Provides an on-screen keyboard for typing. When any window listed under "Menu" is open, left-double-click to bring up the on-screen keyboard.

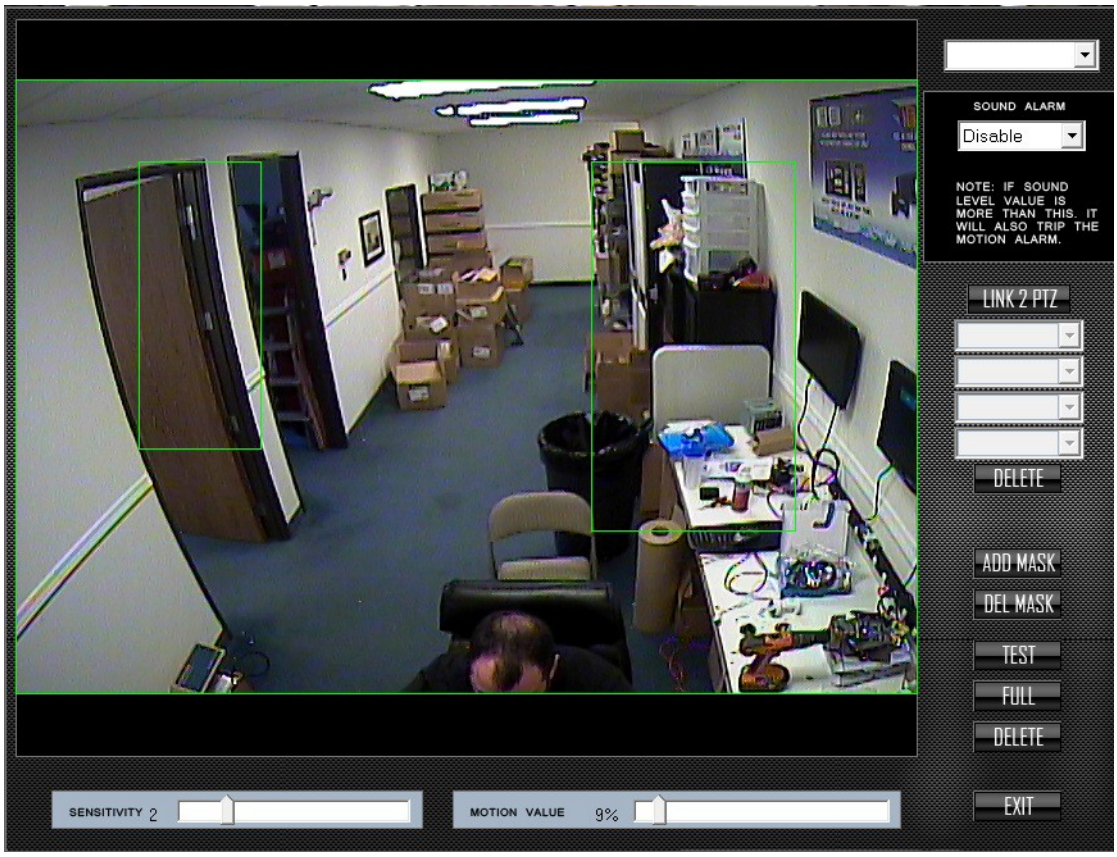
12. Motion Detection Setup

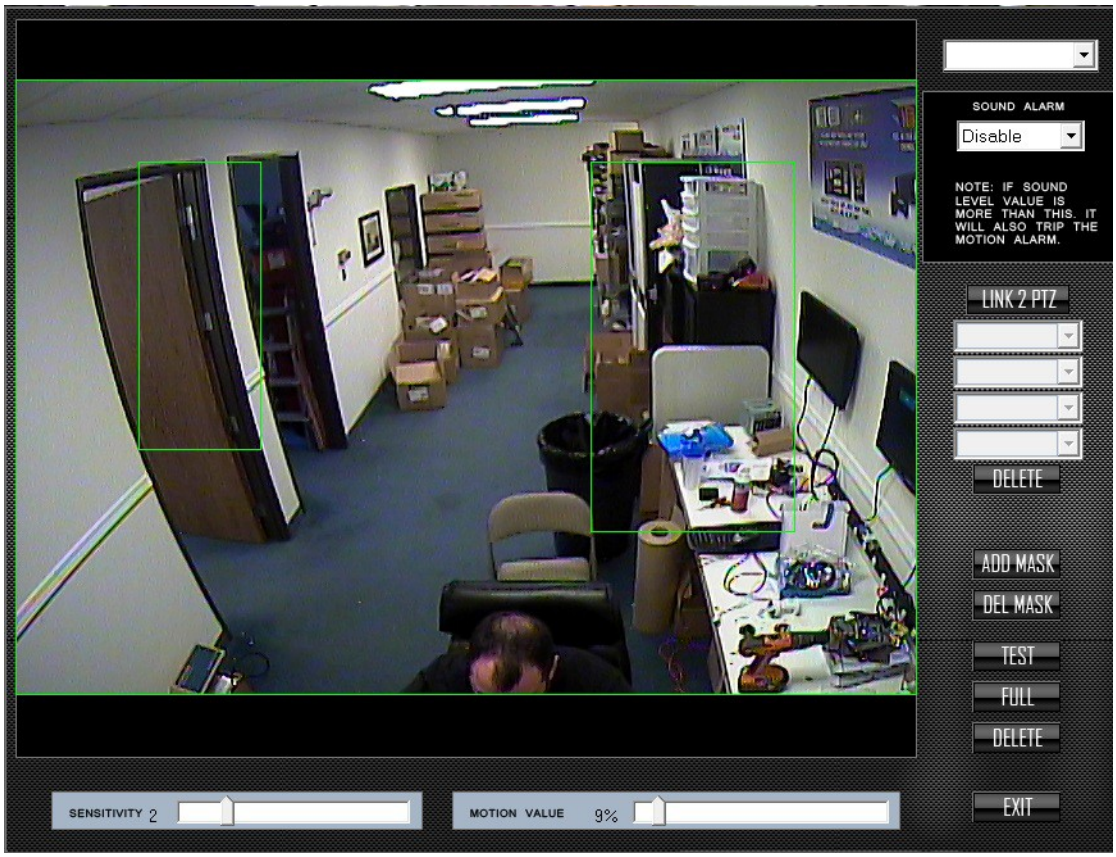
(1). Sound Alarm

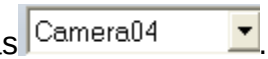
Enable Sound Alarm and select a value from the dop-down list for the alarm. When sound is detected above the value you selected, an alarm will sound.

(2). Motion Link to PTZ

You can press “Link to PTZ” button to activate motion link PTZ preset function. Select ***Motion detection setup*** to set the motion detection area.





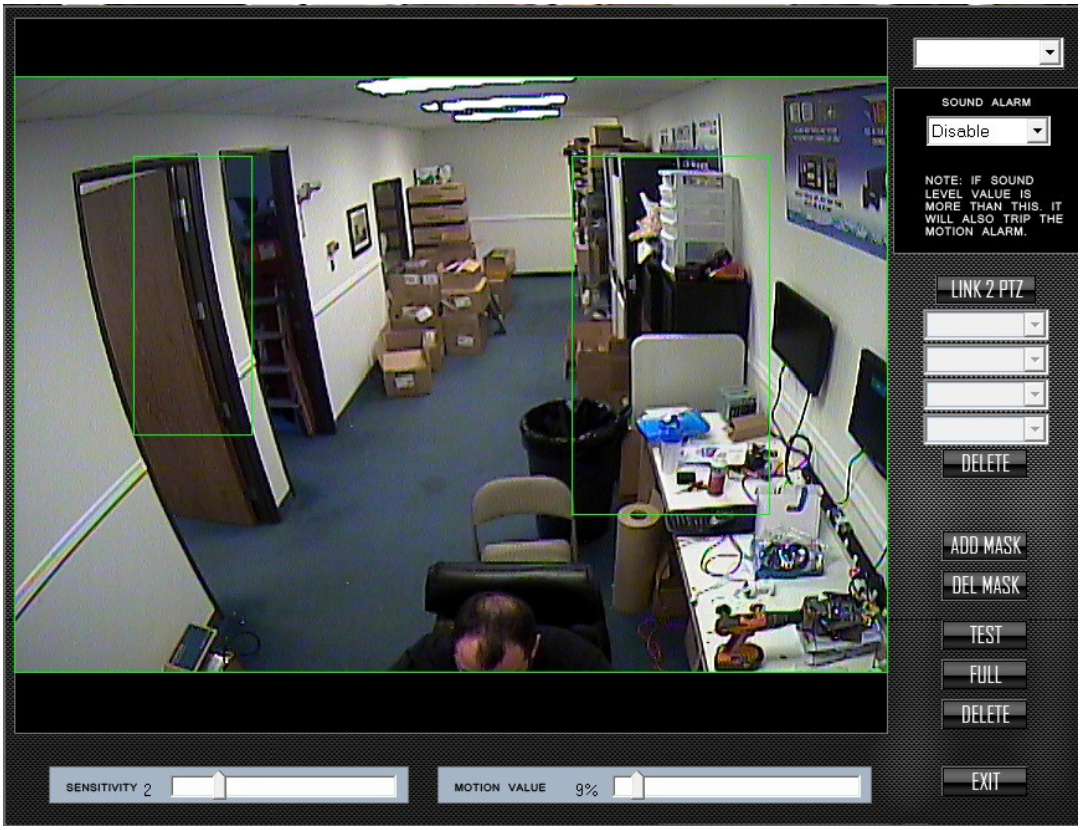
First, you should select the PTZ camera and set the preset. Then, you should select the detected camera, which is showed as 

. Next, select the detected area named Zone01 like the green frame. If you select the number is 64, the total of the zone is 64, you can detect the number of areas is 64. When the detected area motions, the PTZ camera will link to the preset you set.

(3). Motion Setup

If you don't want to use the motion link PTZ preset function, you should press

again, then the motion detection is enable as below:



By default, the entire screen is set as motion detection area where is indicated with green border around the image. To mask a specific area, you can click DELETE button to cancel the full screen motion detection area; then Left-Click and drag to create a rectangle. If motion occurs inside of the rectangle, the DVR Software will start recording, sound an alarm, flash icons on an electronic map, or all three, depending on your settings. Multiple rectangles can be drawn. The sensitivity slider at the bottom of the screen sets the threshold for motion detection. If your camera is focused on a field with grass, you may want to adjust the sensitivity so that grass blowing in the wind doesn't trigger recording. You may simply want to detect when animals enter the field. Adjusting this setting will prevent your DVR from recording "unnecessary" footage.

Click TEST button to test the sensitivity of motion detection. The sensitivity can be adjusted by dragging the slider bars below the motion detection window:

The Sensitivity value bar adjusts sensitivity to the SPEED of objects moving inside of a motion detection area. A lower value indicates HIGH sensitivity to motion speed. Higher values indicate LESS sensitivity to motion speed. For example, a motion value of 5% might detect an airplane flying slowly in the sky. A motion value of 50% might not, because the speed of the

airplane falls below it's sensitivity threshold.

The motion value bar sets sensitivity based on the size of the object moving relative to the area of the motion detection area. A setting of 5% means that an moving object has to be at least 5% the size of the motion detection area in order to trigger detection. This feature prevents small objects like birds or other small animals from triggering the system unnecessarily.

Motion sensitivity value will affect the accuracy of smart search.

I. Add Mask

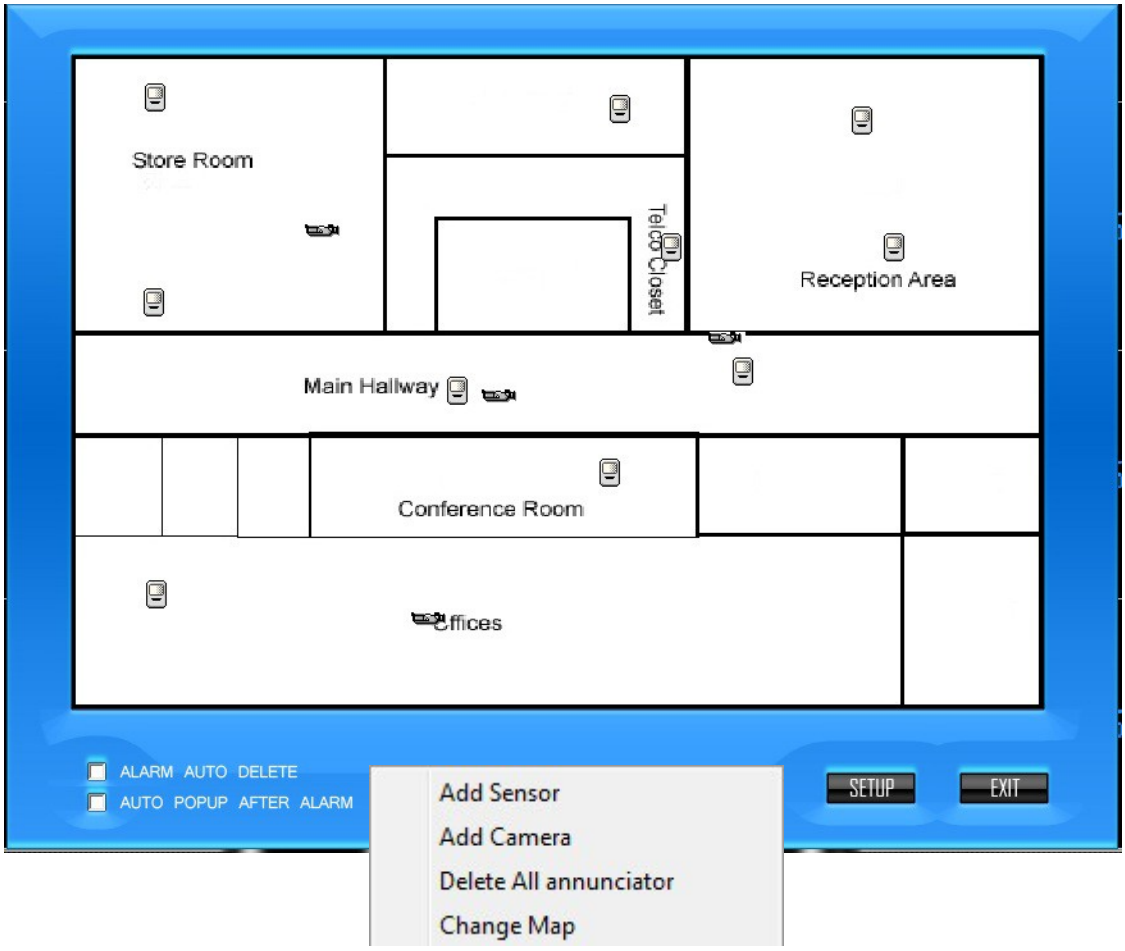
Press ADD MASK button to set the area to be masked (masking an area simply prevents it from being viewed live. The masked area will still be recorded, and viewable on playback). Lef-click and drag to draw a rectangle and mask off an area. Multiple rectangles can be drawn to mask multiple areas. Press this button again to finish adding.

II. Delete Mask

Press DEL MASK button to delete all masked areas.

13. Open Electron Map

Click SETUP icon and then Right-Single-Click on the map. A menu will display, allowing you to add a sensor, a camera, delete all, or change map.



When "Auto Popup After Alarm" is checked, when a sensor is triggered, the map will appear automatically and the sensor being triggered will be marked. Left-double-click the corresponding camera on the electron map, and the camera's video will display.

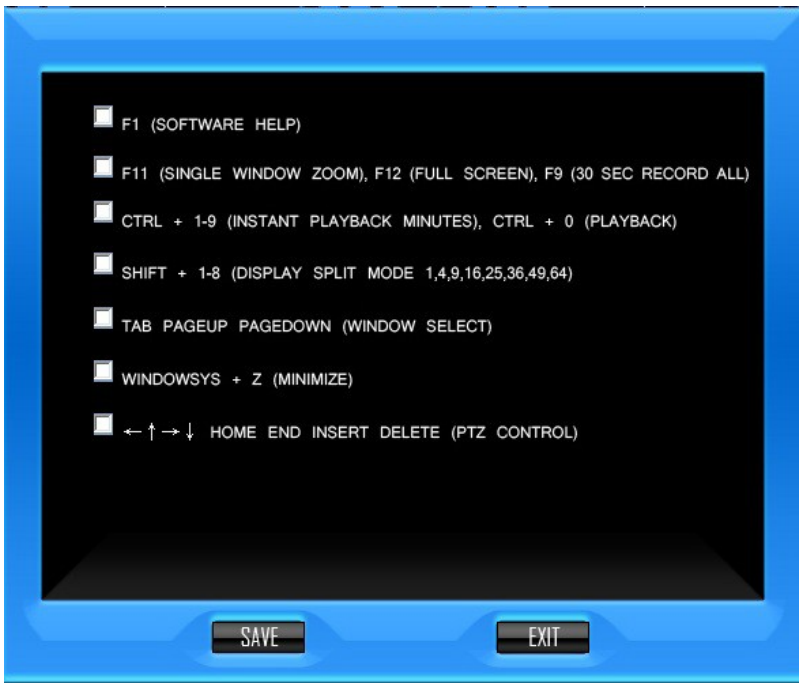
15. Keyboard Shortcuts Setup

If you don't want to use certain shortcut keys, you can disable the them here by unchecking the box next to the shortcut(s) you'd like to disable.

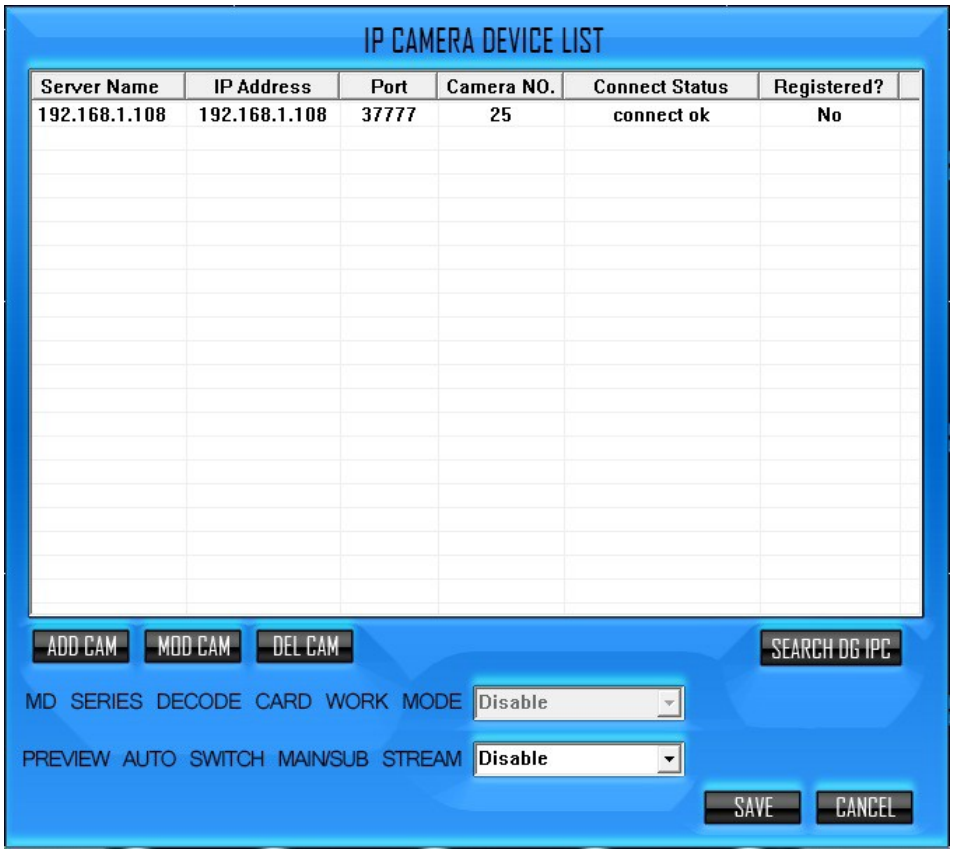
Note:

Please be sure to enable F12 before you display video in full screen mode. Otherwise, you may not be able to return to the Main Screen when the DVR Software is locked in full screen mode. In this situation, you'd have to press Ctrl+Alt+Del to close the DVR Software in the task manager. If F12 is enabled, you can just press F12 to return to the Main Screen.

The DVR Software will be locked when "Local Password" is enabled and the "Auto Lock Time" specified in Password Setup has elapsed. However, system will not be locked when there is video loop.


F1 (SOFTWARE HELP)
F11 (SINGLE WINDOW ZOOM), F12 (FULL SCREEN), F9 (30 SEC RECORD ALL)
CTRL + 1-9 (INSTANT PLAYBACK MINUTES), CTRL + 0 (PLAYBACK)
SHIFT + 1-8 (DISPLAY SPLIT MODE 1,4,9,16,25,36,49,64)
TAB PAGEUP PAGEDOWN (WINDOW SELECT)
WINDOWSYS + Z (MINIMIZE)
← ↑ → ↓ HOME END INSERT DELETE (PTZ CONTROL)
SAVE
EXIT

16. Add/Del IP Camera



Adds IP devices to Hybrid NDVR system. A maximum of 64 IP cameras can be added (depending on your server's hardware resources), including DVS and EM Hybrid NDVR. Now our software supports the following types of IP products:

EW Series IP/EMDVR, MT Series IPC,MT 42XX/50XX EMDVR, Sony ch_dh_rh_rs , DH Series IP/EMDVR, Sony DM110/160, ACTi Series IPC, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IPC, Camtron Series, IPC, Axis Series IPC, Vivotek Series IPC, SanYo Series IPC,ONVIF Protocol IPC,CNB Series IPC ,Sunell Series IPC and Panasonic Series IPC.

Note:

All cameras support ONVIF can also be supported by our software. You can add them to our software as normal IP cameras. The only difference is you have to select ONVIF IPC as the device type.

Also we integrated MT IPC and DH IPC scan tools into software, now customers can use these tools to search for the MT Series IPC and DH Series IPC, config them, and add them into Hybrid NDVR Server software directly.

MD series decode card work mode: Select D1 work mode or CIF work mode to decode IP cameras when there are MD cards. Only EW series normal IP devices and EW 40 series cards can be decoded. Megapixel cameras and EW 42 series cards can't be decoded. If you don't want to decode IP devices, you should disable this function.

Preview auto swith main/sub stream: If this function is enabled and cameras are connected by double stream, then, it will switch to view sub stream automatically when there are many cameras being viewed. And it will switch to main stream automatically when you maximize only one window.

Note:

You can lock "Add/Del IP Camera" function to avoid other users managing it. For example, you can create a new user named "user1" and disable "Add/Del IP Camera" for it.

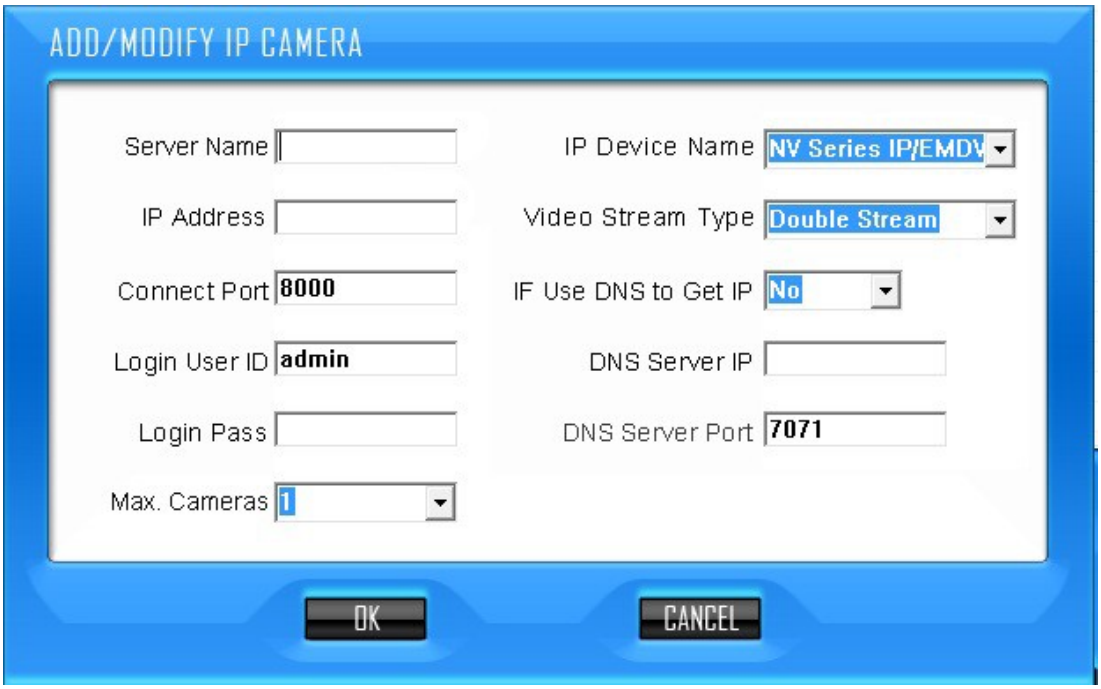
Then, when some one logs in with any other user ID except "admin" and tries to enter "Add/Del IP Camera", there will be a dialog shown as below to confirm the user ID and password. If you input "user1" and its password, you will not be able to enter the function. And there is no prompt.

(1). Add IP camera device

I. Add IP device (except MT series)

Press

button to add an IP Camera device (except MT series IP camera):



【Server Name】Set a name for the new IP camera device so it can be easily identified.

【IP Address】Input the address of the IP Camera, it is an IP address or IP alias of the IP camera which is connected through DNS Server.

【Connect Port】Set the port that connects to IP Camera.

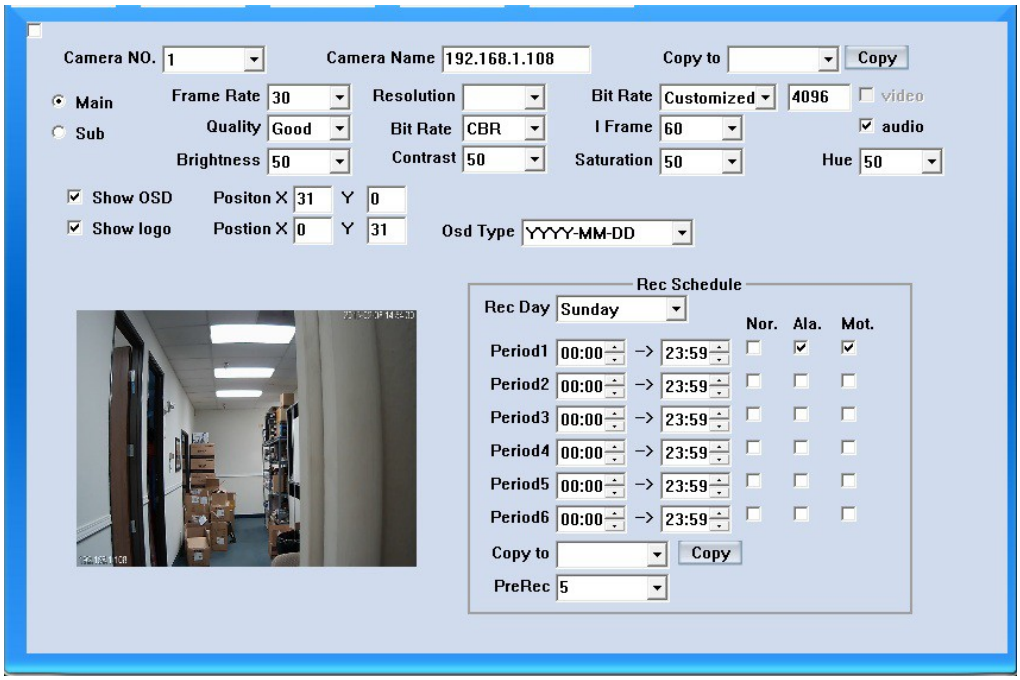
【Login user ID/Login Pass】Enter the User ID and Password needed to connect to the IP Camera

【Max. Cameras】Set the number of channels you want to connect. The max is 32 channels.

【Device Name】Select the corresponding name for the IP camera. Now our software supports the following types of IP products: EW Series IP/EMDVR, MT Series IPC, MT 42XX/50XX EMDVR, Sony ch_dh_rh_rs , DH Series IP/EMDVR, Sony DM110/160, ACTi Series IPC, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IPC, Camtron Series IPC, Axis Series IPC, Vivotek Series IPC, SanYo Series IPC,ONVIF Protocol IPC,CNB Series IPC ,Sunell Series IPC and Panasonic Series IPC.

【Video Stream type】If you want to use the ***Record sub stream*** function in the IP device, you should select the data stream type ***Double Stream***.

Select the Main-stream or sub-stream for the device, the main-stream and sub-stream could be set in the following interface:



【If use DNS to get IP】Select whether use DNS to get IP or not, if the server end is the dynamic IP address, users need use DNS to get the server's IP.

【DNS Server IP】Set IP address of DNS server host.

【DNS Server Port】DNS server host's port, which is needed to connect DNS software.

II. Add IP Device by Searching

Click

button to add IP device. Then, this list will pop up.

Select MT Series IPC Search, the following interface will be shown.

The interface here displays all the IP devices can be searched and connected. When there is a new MT IP camera connected but you can't find its IP address in the list, please press Update IP List. Also, you can press Clear IP List to make sure all the IP cameras those are not available at this moment will be cleared from the list.

You can also modify IP of the searched IPC. Click

button after you input the IP address, Mask and Net Gate you want.

You can add EW/DH series or ONVIF IP cameras in the similar way.

Note:

Because the search tool is using multicast protocol and the firewall forbids the multicast data packet, so please close the firewall first to make sure MT series IP devices can be found.

When there is a new MT IP camera connected but you can't find its IP address in the list, please press Update IP List. Also, you can press Clear IP List to make sure all the IP cameras those are not available at this moment will be cleared from the list.

Select one device from the list and click

button to add it to the Hybrid NDVR system.

When you finished adding IP Camera to Hybrid NDVR system, it will show the status of that camera, including Sever name, IP Address, connect port, sequence number for IP Camera, connect status and register information.

Note:

After you add IP cameras to Hybrid NDVR system, they will be located in sequence numbers after local board cards. The sequence numbers of the IP cameras change dynamically according to the total numbers of analog channels and the sequences of the IP cameras that have been added to Hybrid NDVR system. For example, if there are 32 analog channels, then you add 2 IP cameras. They will be located 33 and 34 as their sequence numbers. Then if you add another board card (4 channels), the sequence numbers of them will change to 37 and 38 dynamically.

(2). Modify IP camera

Press

button to modify IP camera's information, its interface is same as Add IP Camera.

(3). Delete IP camera device

Press

button to delete connected server. When system is in processing to add IP camera device ("connecting…"indicated in connect status column), user cannot delete that IP camera device.

(4). Decode card work mode

Hybrid NDVR system supports playing video of IP Camera to TV wall directly, and then it uses the hard decoding function of decoder, so you should set the work mode of decoder. If you don't use hard decoding, you can't output video of IP Camera real-time, user can only play back recording data to TV monitor by selecting Playback to TV Monitor function.

Note:

Each EW4002MD card can decode 2 channels D1 or 4channels CIF.

Each EW4004MD card can decode 4 channels D1 or 8 channels CIF.

When you select the work mode, system will send out corresponding channels of IP camera from the first IP camera. It will not influence soft decoding for cameras of local board cards. If you enable hard decoding, then all the images of cameras will be displayed in overlay model, adversely, all the images of cameras will be displayed in off screen model.

17. Pos / Acu Function Setup \ Event Monitor

Please refer to the Saber Pos Manual.

18. Multi-Channel POS Search

Click this tool bar to enter multi-channel POS search page, shown below:

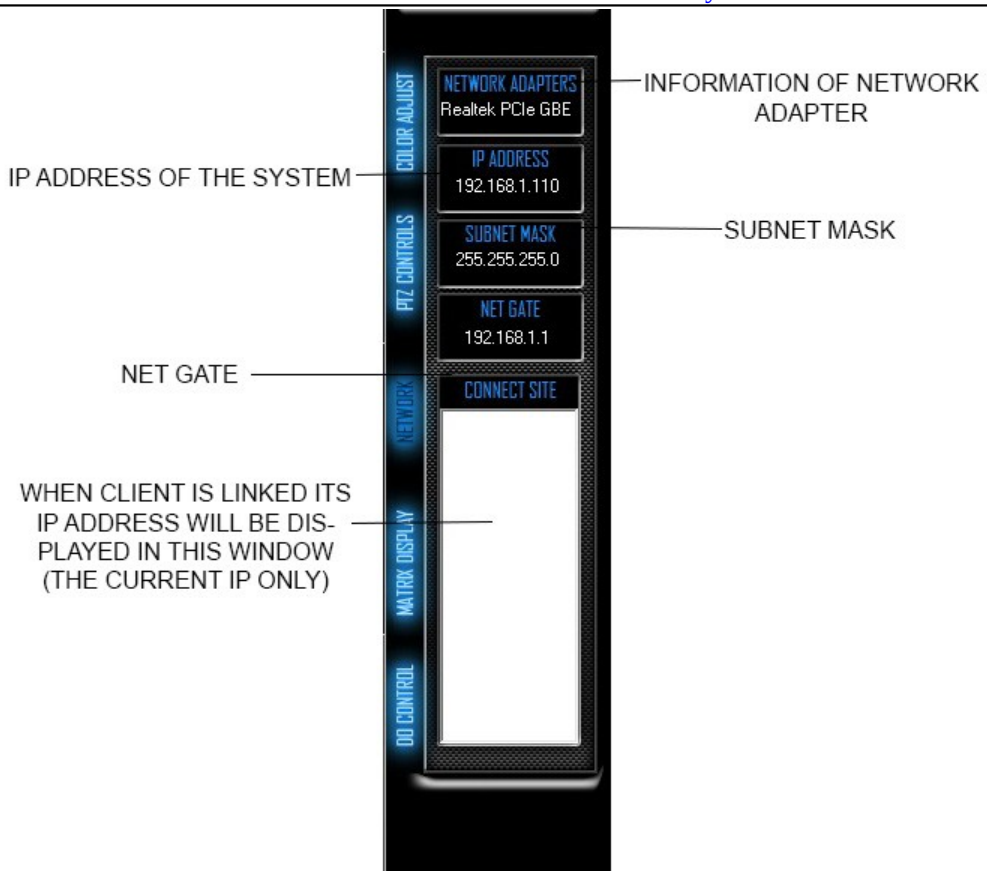
You can search as many as four channels together in several days. After one window is selected via clicking the black window on the right, you can double click the camera in the frame to display its video and text. You can display any camera in any window.

POS Filter

Check the box in front of the rectangle to enable POS filter. You can type any word according to the POS text to display the lines you want. For example, if you want to display all the lines containing less than 5$, then you can type “<5$” as the filter.

1.4.5 Network Panel

This panel displays the network configuration of Hybrid NDVR system.



1.4.6 PTZ Control Panel

In Hybrid NDVR system, there are three ways to operate PTZ:

1. Panel operate;
2. Operate in video area directly;
3. Keyboard operate.

1. PTZ Speed

Press and drag the slider bar to adjust the speed of PTZ.

2. Relay (On/Off)

Control the PTZ cameras internal relay (relay1) or the decoder's relay (relay 1). Used to turn on a light or control an access gate.

3. Wiper (On/Off)

If using the PTZ cameras corresponding wiper control relay, this toggles the relay/wiper on and off.

4. Zoom + / Zoom –

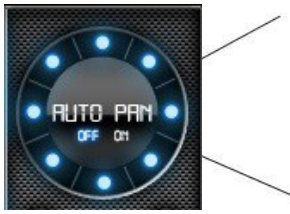
Control the zoom function of the PTZ camera.

5. Focus + / Focus –

Overrides the auto-focus setup of the PTZ camera, adjust focus the image.

6. Iris + / Iris –

Overrides the PTZ cameras auto-iris and brightens or darkens the image.



Pressing this button initiates the connected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factories forbid this command.

By pressing and holding these buttons, the PTZ camera will move up, down, right and left as well as other directions.

7. Speed Dome

Press

button to operate the speed dome, including Preset Setup, Preset Call and Preset Tour:

For IP cameras, the preset should be set remotely in IP Camera Setup. But you can also use Preset Call and Preset Tour function here after you set them remotely.

(1). Preset Setup

In this screen you can set the preset position:

I. Add/Delete preset

In this section you can set the preset name with its sequence number, then you can press + / - button to add/delete a preset, when you want to modify the preset you can press SET button to confirm your modification. For different cameras, they have different commands to open and set, so you can choose the call mode in the drop-list for different cameras.

II. Home position

You can set a home position for the PTZ. When there have no PTZ actions after the setting time system will call the PTZ to the home position.

III. Tour preset

In this section you can set the tour schedule. First you can choose a group, and then set the track for this schedule; you can press + / - button to add/delete a preset to it. After you choose the preset name you can set the time to keep on.

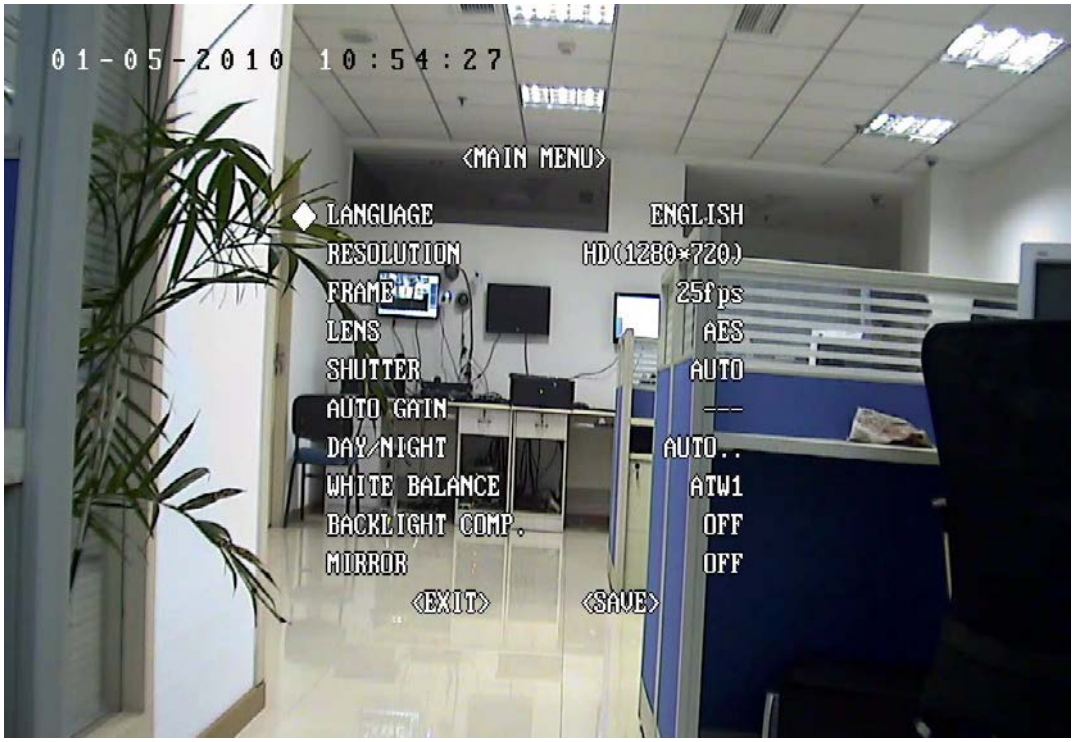
(2). Preset Call

When you select this function, system will show all the preset names you set in Preset Setup menu; you can click one to move to it.

(3). Preset Tour

When you select this function, system will show the entire tour groups you set in Preset Setup menu; you can click one to execute it.

If the views are the PTZ&IP camera and mega pixel IP camera, when you call preset 95, you can see:



When you enter the menu, you can control it by

using up, down, left and right buttons. Press

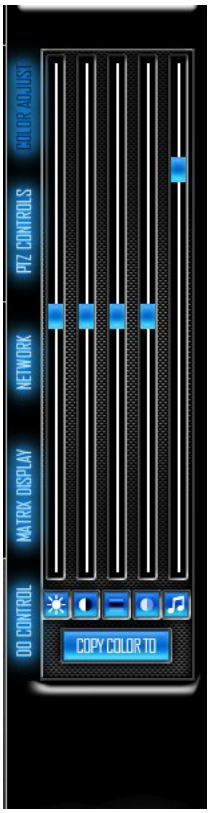
(close Iris) to enter the sub menu. When you use up or down to move to “exit”, press “open Iris” to exit the menu.

For details, please refer to Chapter 4 in ***Network_Camera_Menu*** for details.

8. Control PTZ via Video Window

Press and drag the mouse to the corresponding area can control the PTZ when there is a decoder.

1.4.7 Color and Audio Adjustment



① Press the first button and drag to adjust the brightness of the image that you selected, and you can resume its default value by pressing .

②Press the second button and drag it to adjust the contrast of the image that you selected and you can resume its default value by pressing .

③Press the third button and drag it to adjust the hue of the image that you selected, and you can resume its default value by pressing .

④Press the fourth button and drag it to adjust the saturation of the image that you selected, and you can resume its default value by pressing .

⑤Press the fifth button to switch sound of the audio that related to the image you selected and drag the bar to adjust the volume, and you can resume its default value by pressing .

Copy Color To: pressing the COPY COLOR TO button to copy the color and audio adjustment in this camera's setting to the others.

1.4.8 Matrix & Display

This panel includes matrix group and display group. Each group includes 16 numeric buttons; each button denotes one type of matrix or display. This will describe in Digital Matrix Setup.

1.4.9 DI/DO Control

1. DI Control

Press number button to check sensor all time forcibly even though user didn't set check sensor in Sensor Setup. The channel of DI and DO is determined by the setup of DI/DO device you set in System Setup. There are two types of status to DI:

2 Input channel 2 doesn't check sensor forcibly.

3 Input channel 3 checks sensor forcibly or has an alarm inputting.

Any of the camera numbers can be pressed to force an alarm. Press the button again to stop. At this point the software will revert to the settings specified in Sensor Setup. When there is an alarm, the corresponding button will show the alarm with green.

Note:

When you select NV 7632 and the combination is not the standard configuration (combination of NV 7608 and NV 7616 or NV 7608: total DI is less than 32), some ports are not available according to the setting of decoder address. For example: user selects NV 7632 and the combination is NV 7608 (decoder address is 1) and NV 7616 (decoder address is 2), then the DI ports 9 to 16 are not available, so that the status indication is not available.

2. DO Control

Press number to open/close alarm device relay switch manually. There are two types of status to DO:

2 Output channel 2 is close.

Output channel 3 is open.

Any of the camera numbers can be pressed to force an alarm. Press the button again to stop. The button will change to the color green. Press it again to stop.

Chapter2 Local Setup

The Hybrid NDVR System Configuration and include 7 types of configuration setup:

System Setup

Camera Setup

Sensor Setup

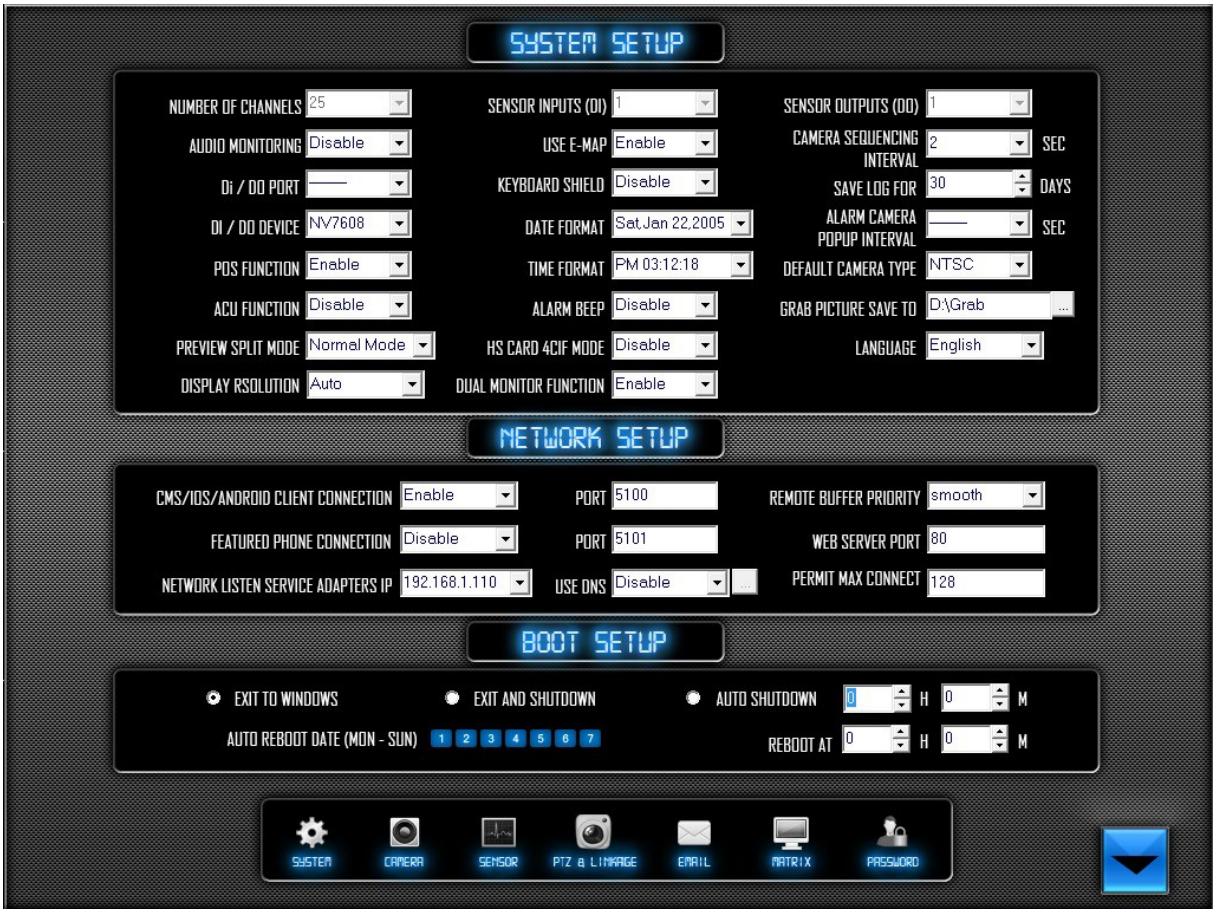
PTZ & Linkage Setup

Email & SMS Setup

Matrix & display Setup

User Setup

2.1 System Setup



2.1.1 System Setup

【Number of Channels】Display total channels available (varies depending on the DVR Cards installed), the number of IP Camera is not included. For IP Camera, you should set it remotely in IP Camera setup.

【Sensor Input(DI)】Display number of sensors (DI).

【Sensor output(DO)】Display the number of alarms(DO).

【Audio Monitoring】Select real-time monitoring audio or not.

【Use E-Map】Select use Electron Map or not.

【Camera sequencing interval】Set auto-split changing interval time.

【DI/DO Port】Select sensor/alarm driver connecting port, it must be different from PTZ Port. If you do not use alarm input, you can close this function. To avoid conflicts to the PTZ port, you should set and use the different ports for these two functions.

【Keyboard Shield】System keystroke. When it is enable, functions of some system keys will be disabled.

【Save Log for() Days】Log save days(max 100 days).

【POS Function】Set the pos function disable or not.

【ACU Function】Set the ACU function disable or not.

【Alarm camera popup interval】Set the interval of alarm camera, if you select "—" ,you can't select function ***Start alarm popup***.

【DI/DO Device】Select receive alarm device type. When you change the type of alarm device, you should reboot the system to update the device information in ***DI/DO control panel***.

Note:

Currently, system supports following NV serials DI/DO devices: NV7608, NV7609, NV7616, NV7616B, NV7632 and NV7632B. NV7632 includes two NV7616 (or combination of NV 7608 and NV 7616), and NV7632B includes two NV7616B. When you select these two selections you must set their decoder address as 1 and 2, and they should connect with PC through RS 485 converter after they connect parallel with each other.

【Date Format】Select the way to display date. It decides the date display mode of Hybrid NDVR system, including the information panel on the main screen, the date panel of the playback window and OSD date in video.

【Alarm Beep】Select disable or enable from drop-down list. If select "enable", when there is an alarm, system will make beep voice.

【Time Format】Select time format from the drop-list. After you change the format it will affect the OSD format, information in information display panel and file lists.

【Default Camera type】Set the default mode of video from PAL and NTSC, it is available when the input video is lost and for the decoder to playback local video to TV Wall.

【**Grab picture save to**】Select the path to save the captured pictures.

【**Preview Split Mode**】Select window split mode for Hybrid NDVR between “Normal Mode” and “Wide Screen”. It would be better to select "Wide Screen" when you are using a wide screen monitor. You should re-select the view window number to refresh the window split mode status.

【**HS Card 4CIF Mode**】Select the HS Card 4CIF Mode function disable or enable.

【**Language**】Select one kind of language to use. Generally speaking, there is “English” only. But we can add some other kinds of language according to your requirement.

【**Display Resolution**】Select display resolution among ***Auto, 1024*768, 1280*768, 1280*1024, 1366*768, 1440*900, 1600*900, 1680*1050 and 1920*1080***. When ***Auto*** is selected, the software will adjust its display resolution according to the resolution of desktop. When the desktop resolution is any of the resolution mentioned above, it will be displayed as that resolution. If it’s not any of them, the software will select the closest one. For example, when the desktop resolution is set as 1280*960 and ***Auto*** is selected, then, Hybrid NDVR will be displayed as 1280*768.

It will take effect after the software is restarted.

【**Dual Monitor Function**】Select to disable or enable dual monitor function.

Note:

If you want to use dual monitor, you have to make sure the hardware and the system support the dual monitor first. When there are more than two monitors connected and all the settings are done, the software can realize dual-monitor function automatically after you enabled this function. For more details about dual-monitor, please refer to Dual Monitor User Manual. You can ask our sales to send you the link to download the manual.

2.1.2 Network Setup

【**Remote Connection**】Enable/Disable network connection. If "disable" is selected, NO clients will be permitted to connect to the DVR

【**Remote Connect Port**】Select remote connection port for Clients.

【**Remote buffer Priority**】There are three choices: “Smooth” demands the system have a large buffer. “Real-time” demands there is enough bandwidth. Otherwise, the data will be off and on over and over when it is sent though the network.

【**PDA Connection**】Enable/DisablePDA connection DVR. If "disable" is selected, NO PDA's will be permitted to connect to the DVR.

【**PDA Connect Port**】Select remote connection port for PDA device.

【**Automatic Alarm Notification client IP**】Assign a network client to

receive alarm message when there is an alarm. The alarm channel image will auto display in the client software. But user must be sure that client is running on that IP address.

Note:

Alarm auto connection to IP is used to input alarm automatically. When sensor, normal or motion record is set to input and there is IP address, the system will check if the client has connected with this system. If there is no connection, the system will try to connect with it through Port 5300(preset). While it cannot be connected, the system will keep trying till the connection is OK. So please ensure that your client's program is in use, Port 5300 is listening and the network is in good condition. If not so, the system will not be stable.

【Alarm Send Port】This is the alarm message connecting port, which is used to send alarm from Hybrid NDVR Server to Client.

【Web Server Port】The IE client connecting port. Default value is 80 for http access; but for some windows XP edition, it shields 80 ports. In this case, user should modify this port to other port, such as 1280. After that, user must reboot Hybrid NDVR server, then user can access Hybrid NDVR server via IE Client like this: http://IP: 1280 (IP can be a static IP or dynamic domain name).

【Use DNS】Select use DNS or not, support dynamic IP.

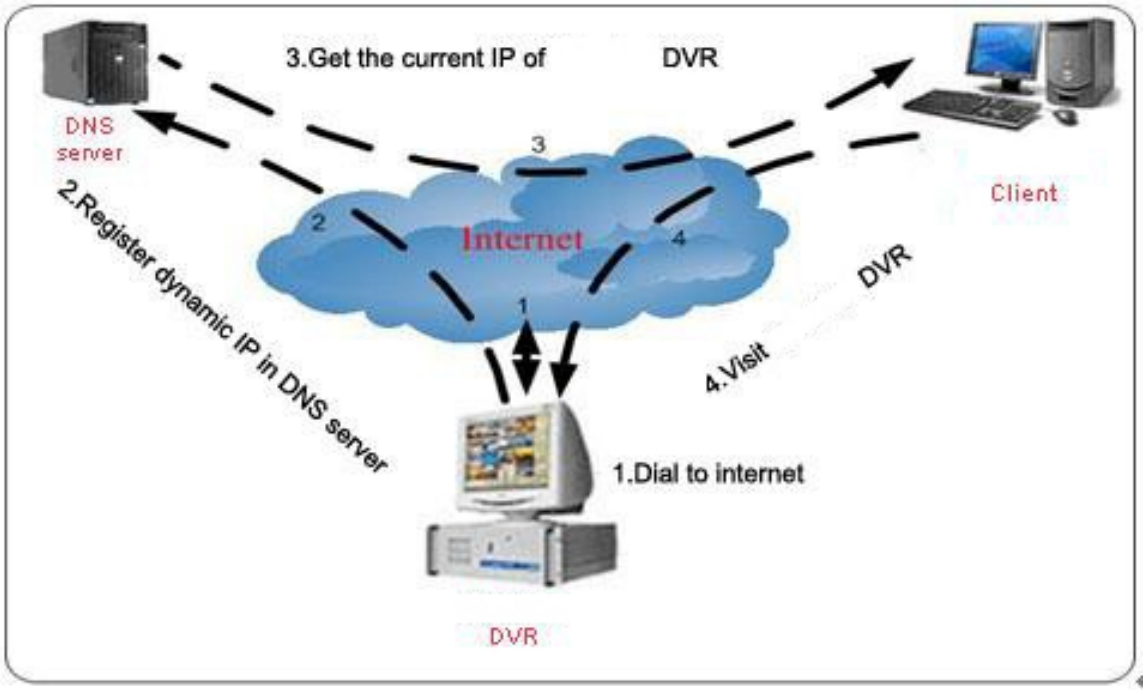
【Local Host Name】Input the name description for DNS Server identification.

【DNS Server IP】DNS server host IP.

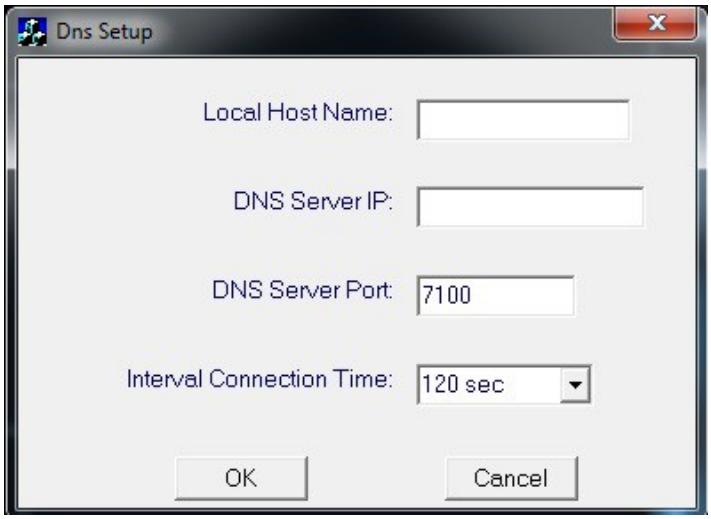
【DNS Connection Port】DNS server host port ,it is used to connect DNS server.

DNS server work mode:

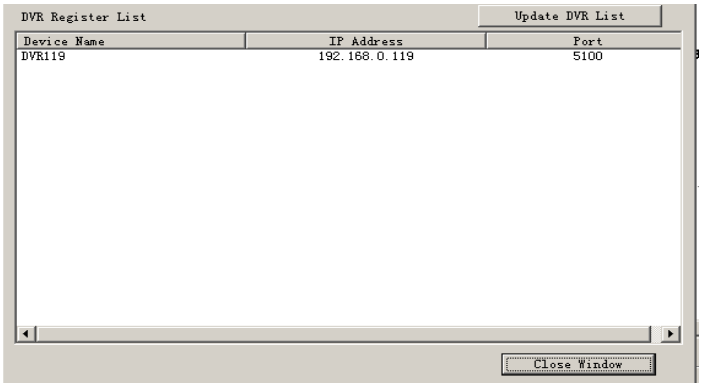
If it is required, please get DNS server software from developer.



1. If your DVR has a dynamic IP address, you should adjust your setting as follows:



2. DNS server will get domain name and current IP of your Hybrid NDVR, CMS Client can connect Hybrid NDVR server through this domain name.



3. CMS Clients get IP of Hybrid NDVR through DNS server according to its domain.

4. CMS Clients visit Hybrid NDVR through the IP that get from DNS server.

【Interval Connection Time】Set the interval time to connect DNS automatically.

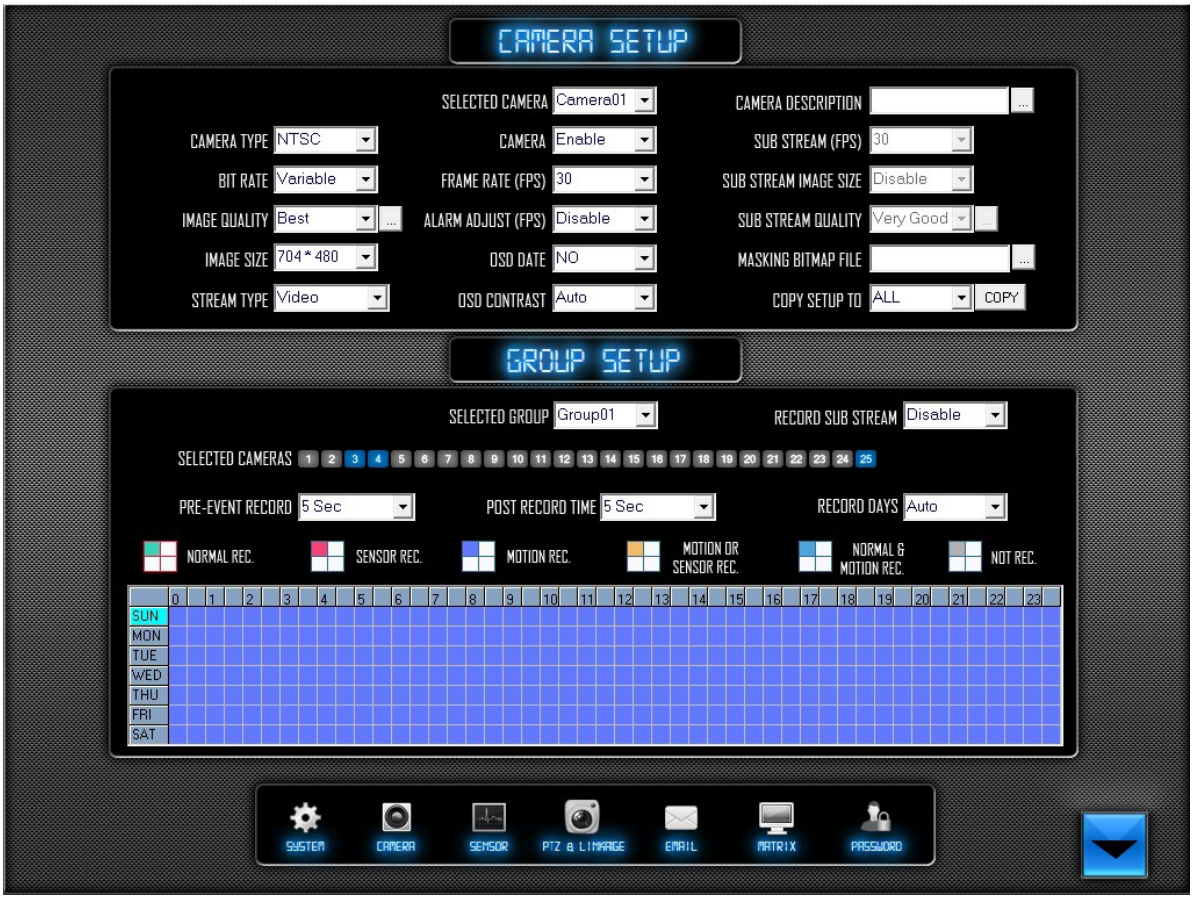
【Permit Max Connect Video Num】The maximum number of video that permit to the client to connect the Hybrid NDVR server. The number can select according to the network bandwidth. The maximum is 256. For example: one Hybrid NDVR server own 2Mbit network bandwidth, if all video channel compress base on CIF resolution (max data bit rate is 500Kb).To get better video effect, we can set 4 as the permit max connect video number.

2.1.3 Boot Setup

【Exit to Windows】User can exit program and back to windows desktop.
【Exit and Shutdown】User can exit program and shut down computer.

【**Auto Shut Down**】Set the time to shut down the computer.
【**Auto Reboot Date(Mon-Sun)**】Select auto reboot date.
【**Reboot at**】Set auto-reboot time.

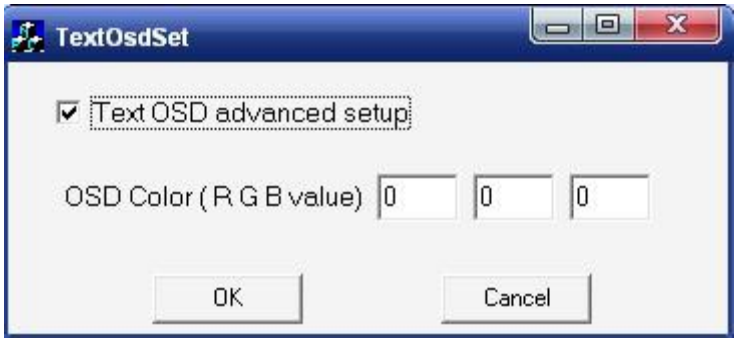
2.2 Camera Setup



2.2.1 Camera Setup

【**Selected Camera**】To set the parameters for a camera, select the camera from the drop-down list. The cameras you can select are only the cameras of the local board card except for IP Cameras. For IP Camera, you should set it remotely in IP Camera setup.

【**Camera Description**】Input the description for easy identification. OSD text can support any languages，it can put any language in camera description edit blank ,and then press the button to set proper color (it does not support white) as below:



【**Camera Type**】Select camera type from drop-down list. Users can choose from PAL and NTSC.

【**Camera**】Enable or disable selected camera.

【**Sub Stream Frame Rate(fps)**】Set the frame rate of the Sub Stream.

VBR allows each frame to be recorded at a dynamic bit rate depending on the image complexity, activity and color.

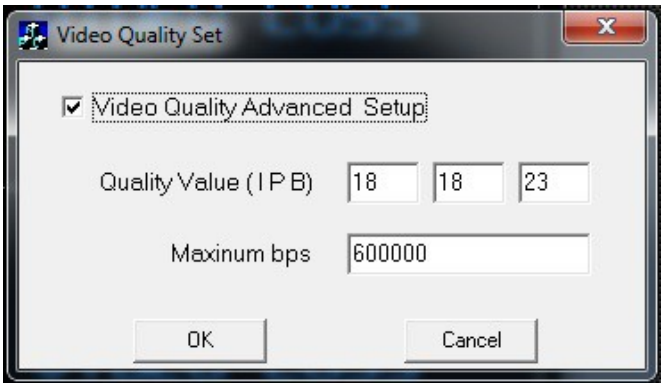
CBR allows each frame to be recorded at fixed bit rate, regardless the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【**Frame Rate(fps)**】Set the recording rate for selected camera. For Frames per Second (fps), the frame rate should be from 1 to 30 fps. While image size is set “704*576”, the frame rate should be set around 1 to 15 frame.

【**Sub Stream Image size**】Select image resolution to the Sub Stream.

【**Image Quality**】Set the quality of the image to be recorded. Select from Poorest, Poor, and Medium, Very good and best.

Click this button to make advanced setup for video quality, you can set I B P frame and maximum bit rate.



Recommend setup:

For CIF:

Image	I frame	P frame	B frame	Max bps

Best	12	12	17	900000
Good	15	15	20	750000
Medium	18	18	23	600000
Low	21	21	26	450000
Lowest	24	24	29	300000

For DCIF:

Max bps = (Maxbps/3)*5

Note:

Maxbps is the CIF's value with the same configuration (I P B)

For D1:

Max bps = (Maxbps/3)*8

Note:

Maxbps is the CIF's value with the same configuration (I P B)

【Alarm Adjust fps】Select enable or disable, If select "enable", when alarm occurred, the camera will record with real-time frame rate(25fps or 30fps) ,even though **【Frame Rate(fps)】** has been set other values(eg:5fps).

【Remote Quality】Set the image quality of the clients to be recorded from Poorest, Poor, Medium, Very good and Best.

Click this button, users can make advanced setup for video quality of client end, also can setup I B P frame and adjust maximum bit rate according to the network bandwidth.

【Image Size】Set the resolution for local record. There is an item "704*576(12fps)", each channel can be set "704*576", but not real time, system will select frame rate automatically around to 12-15fps。To get best effect, you should set the resolution of local record according to your CPU configuration. There is a referenced configuration sample as below:

Computer configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB,

Memory: 512MB

HDD: 120G (IDE)

Recommended resolution configuration for different channels:

Hybrid NDVR Board Channels	Recommended Resolution	Remark
64	CIF	Continuous recording is not recommended
48	CIF	

40	DCIF	
	CIF	
32	DCIF	
	CIF	
24	DCIF	
	CIF	
Less or Equal to16	4CIF	
	DCIF	
	CIF	

【OSD Date】Select whether display the OSD date on the screen or not. When you select “Not”, the date will not display on the screen of corresponding channel.

【Masking Bitmap File】This is the watermark function. The logo image must be 128*128 pixels in size and saved in bmp format.

【Stream Type】Select whether program record audio data or not. This setting is not available for IP Cameras, for stream type of IP Camera; you should set it remotely in IP Camera Setup.

【OSD Contrast】Set OSD displaying brightness & position. An “auto” item in OSD Contrast’s drop-down list will make OSD suit the background’s color automatically. Otherwise, you can set it manually with this setting.

【Copy Setup to】Applies current camera settings to another camera.

Notes:

1) If less than 64 cameras are used, many of them can’t provide pictures sometimes and an alarm will appear (beep to tell you some video information is missing). Set the camera with no picture disabled and the alarm will disappear. When you want to use them later, set as enabled again;
2) The unit of the swap file should be MB. The range is from 2 to 50;
3) Set the position and contrast of the date shown on the screen. Sometimes the date cannot be clearly seen for its color is similar with the background. You can change its position or color when this happens;
4) Image size is the format used when recording. Remote image size is the format used when these images are transmitted to client sides;
5) Remote Frame Rate, Remote image size and Remote Quality are the parameters of the client side. ①When the server’s image size is set as “704*576(12fps)”, the three items are no effect, and client’s parameters will be the same with server. ②When the server’s resolution is set as others (except “704*576(12fps)”), if Remote image size is set as “Same as Rec”, Remote frame rate (fps) and Remote Quality are no effects, the client’s parameters will be the same with server;
6) Variable digital rate table:

Image quality	record environment	occupied disk space (com/hour)
Poorest	Low action, indoor	about 45Mb
	high action, road	about 95Mb
medium	Low action, indoor	about 70Mb
	high action, road	about 180Mb
best	Low action, indoor	about 160Mb
	high action, road	about 320Mb

Invariable digital rate can't improve image quality but it is helpful for calculating disk space. Variable digital rate recording is recommended.

2.2.2 Group Setup Recording

Note:

If a camera is added to multiple groups, it will only be available to the last group it was added to.

【Selected Group】Select group number.

【Selected Cameras】Select the cameras that you'd like included in the group number in the "Selected Group" drop-down. Options include local cameras as well as IP Cameras. A camera's number changes to "red" when it has been included in the selected group.

【Pre-Event Record】Select the start time of record when there is an alarm. When the DVR is in Motion Detect mode or Sensor Detect mode, it can record video before the alarm is trigged (up to 60 seconds)

【Post Record Time】Select the end time of record when there is an alarm. When the system is in Motion Detect mode or Sensor Detect mode, it can record video after the alarm end (up to 60 seconds)

【Record Days】This section allows users to determine how long the record data of each camera should be kept in the system. The maximum duration for on-line storage is 120 days. Users can select an exact number of days, or select "auto" mode. If select "auto", system will auto-delete the recorded data of the earliest days when there is no enough space.

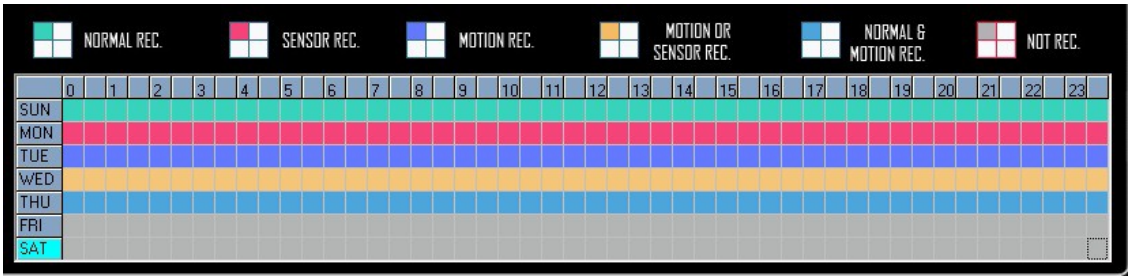
Note:

When there is no enough space of HDD, system will delete the record data according to the length of saving time of each camera. E.g.: there are four cameras, the 1st camera saves 2 days, the 2nd camera saves 5 days, the 3rd camera saves 10 days, and the 4th camera we set "auto" mode. If there is enough space, the 4th camera's record data will save in HDD, while there are not enough space, system will delete data automatically. If the 4th camera's record data has been saved more than 10days, system will delete the 4th

camera's data. If the 4th camera's record data has been saved less than 10 days, but the 3rd camera's data is more than 10 days, system will delete the 3rd camera's data. So, even if you set the 3rd camera's record data saving 10 days,

the data that is saved less than 10 days become possible. System will delete the record data from the earliest date.

Recording Schedule Setup (Set for cameras of local board cards and IP Cameras.)



Tips:

One block of pane means half an hour. Firstly click record mode icon, then click schedule diagram, hold down the mouse and move it to select large area (Drag & Drop).

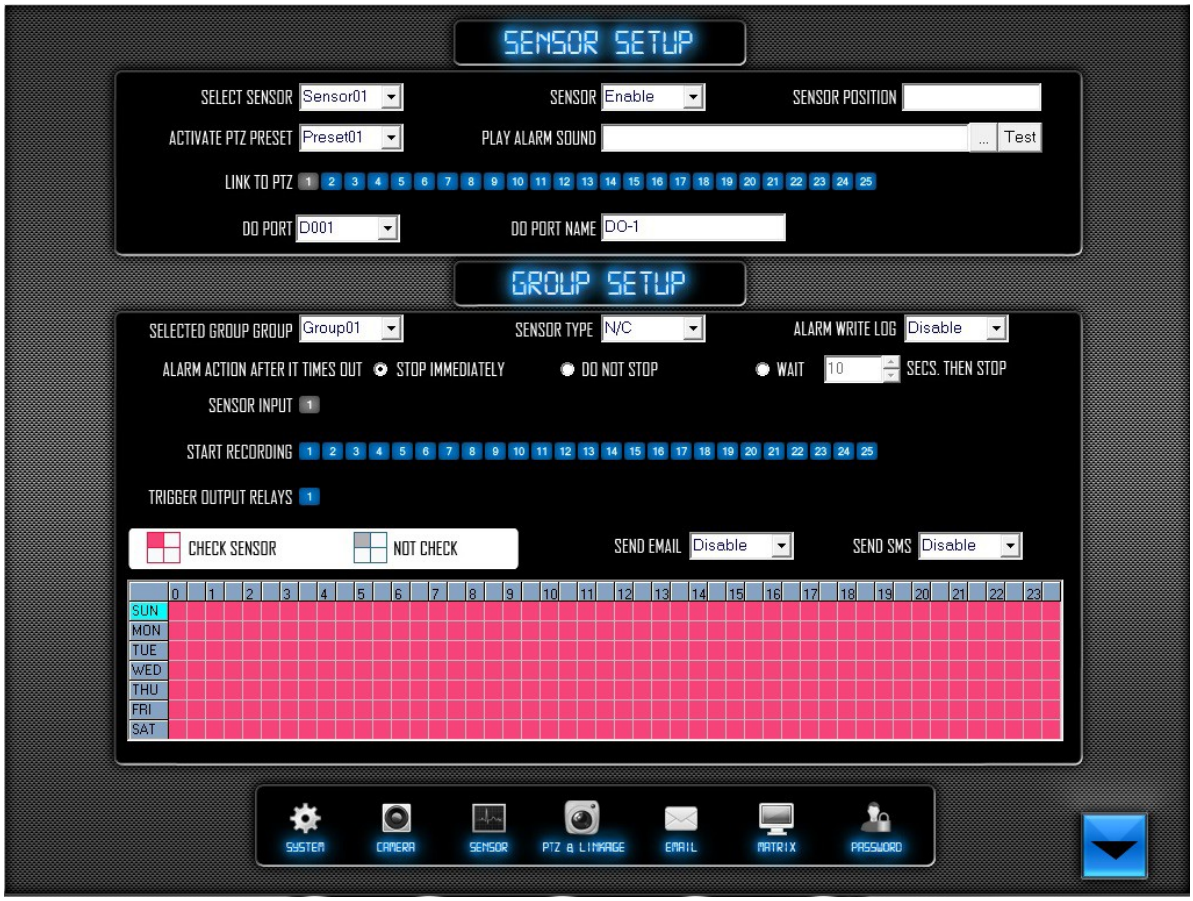
1. Normal Record (green): Hybrid NDVR system always record video (e.g. Sun.);
2. Sensor Record (red): Hybrid NDVR system begins to record video only when there are POS or ACU actions(e.g. Monday);

Note:

The time setup must be corresponding with Check Alarm setups in Sensor setup otherwise it can't work properly.

3. Motion Record (Blue): Hybrid NDVR system begins to record video only when it detects moving object (e.g. Tuesday.);
4. Motion or Sensor Record (yellow): Combine with above 2 and 3 function (e.g. Wednesday);
5. Normal & Motion Record (light blue): Hybrid NDVR system records in motion detection record when it detects moving object and in normal record when there is no motion (e.g. Thursday);
6. Not Record (gray): Hybrid NDVR System records no video (e.g. Friday and Saturday).

2.3 Sensor Setup



2.3.1 Sensor Setup

【Select Sensor】Select the sensor from the drop-down list in order to set the parameters for it.

【Sensor】 Select this sensor port to use or not.

【Sensor Position】 Enter the description for easy identification.

【Activate PTZ Preset】 Select linkage of Speed Dome preset number . Speed Dome will move to this preset number automatically when there is an alarm. (Speed Dome installation needed).

【Play Alarm sound】 Select a sound of .wav for a sensor, if there is an alarm, the sound file will play.

【Link to PTZ】 Select camera that is related to this sensor alarm.

【DO Port】 Select a DO port that is related to this sensor alarm. You can set sensor alarm for single sensor via the Sensor and DO Port here.

【DO Port Name】 Fill in the description for the DO port.

2.3.2 Group Setup

Sensor group setup is very similar to the group setup of camera recording.

【Selected Group】Select group number. (You can set sensor alarm for a group here.)

【Sensor Type】Select NC or NO alarm type.

【Alarm Write log】Select write alarm log or not.

【Alarm Action After It Times-Out】Select system alarm linkage mode when an alarm stops. “Stop Immediately” means the system stop alarm immediately after the alarm driver stops an alarm. “Do Not Stop” means the system don’t stop alarm after the alarm driver stops an alarm. “Wait” means the system will stop alarm at your setting time after the alarm driver stops an alarm.

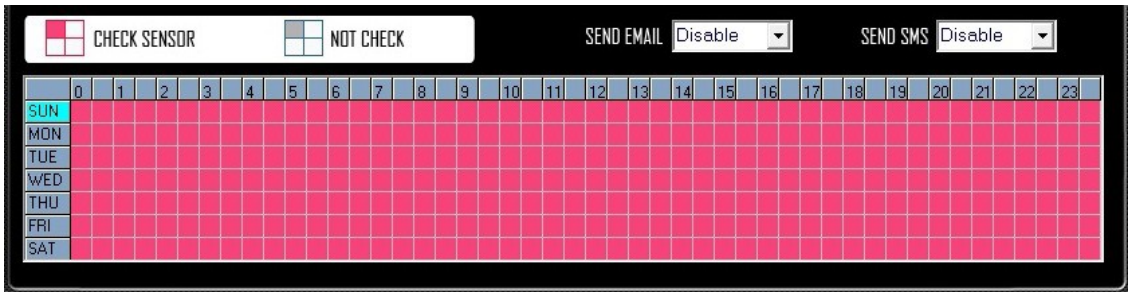
【Send email】Sends an email when the sensor is triggered. Enable or Disable.

【Send SMS】Sends an SMS text when the sensor is triggered. Enable or Disable.

【Sensor input】Add sensor to selected group.

【Start recording cameras】Set cameras that to be related to this sensor group. They will start recording and connect remote network client automatically when there is an alarm**.** The cameras just include the cameras of local board card; IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【Trigger Output Relays】Add alarm devices (alarm out port) to this group such as siren, light. All connecting devices will send alarm message when there is an alarm.



Check Alarm (Red): Hybrid NDVR System responds with sensor during this time (00:30 to 12:00 from Sun. to Sat.);

Not Check(gray): Hybrid NDVR System doesn’t respond with sensor during this time.

Note:

If you set a camera in several groups, only the last setup is available.

2.4 PTZ & Linkage Setup

2.4.1 PTZ Protocol Setup

【Selected Camera】Select the camera from the drop-down list to be set the parameters. The cameras just include the cameras of local board card; IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【PTZ Port】Select PTZ connecting port, when you do not use PTZ port, please choose "------".

【Hybrid NDVR Keyboard COM Port】Select a connecting port for Hybrid NDVR keyboard. If you have chosen COM1 for DI/DO Port, and you choose COM1 again for Hybrid NDVR keyboard, then, DI/DO Port will be changed to another port. If you want to know more details for Hybrid NDVR keyboard, please refer to ***Hybrid NDVR/CMS Keyboard Control Manual***.

【PTZ Protocol】Selects the PTZ protocol for the PTZ camera.

【PTZ Address】Set the camera ID number of the PTZ camera being controlled.

Note:

The PTZ camera has a dipswitch to set the PTZ address. The PTZ camera ID number must be matched with the number of this dipswitch.

【**PTZ Baud rate**】Select PTZ Baud rate for the PTZ camera.

【**PTZ Position**】 Select the installation mode of the PTZ according to its installation mode.

Note:

1) PTZ position will influence PTZ control. E.g.: if you set it as obverse and press left, then it will turn left. If you set it as inverse and press left, then it will turn right;
2) If there is (H) after the PTZ protocol, it has the high speed of Preset function. If there is no (H), it only has ordinary functions;
3) The PTZ address will be sent as a message option. Take care that some addresses begin from 0. That is to say， when the address number is 1, the real address is 0. So we must set it according to their relations.

2.4.2 Motion Detection Relay

【**DO Port**】【**DO Port Name**】Select a DO port and set its name to identify the various DO port. It will be shown as a tip when the mouse moves closely or above the DO button in Hybrid NDVR Server or CMS Client.

【**Camera Alarm Detected in**】Selects camera to be set from dropdown list.

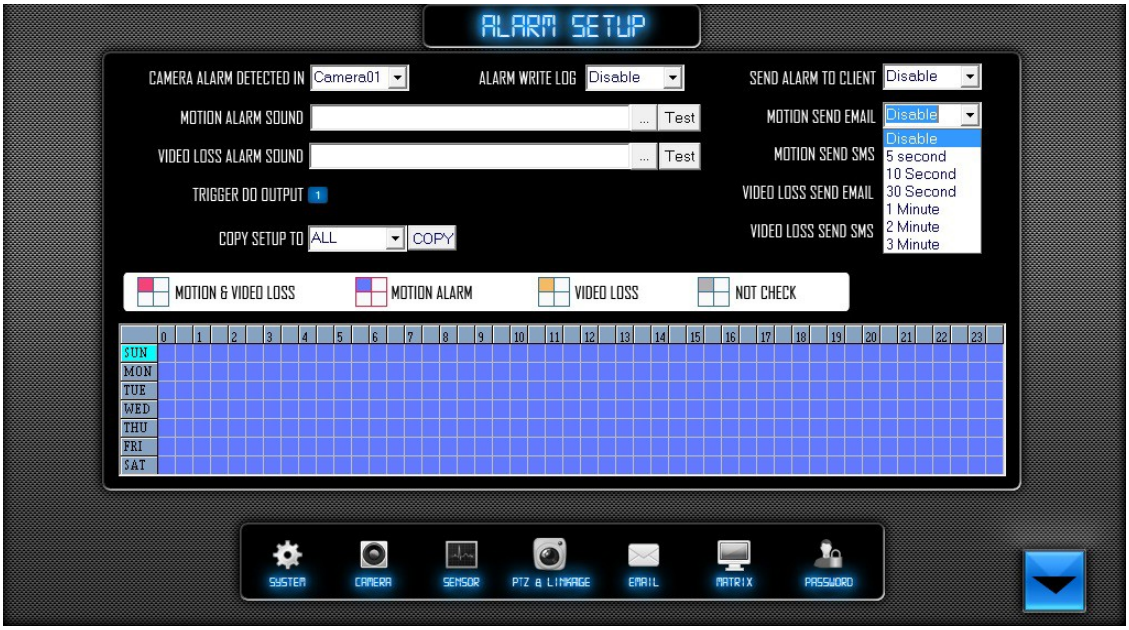
【**Alarm Write Log**】Select write alarm log or not when there is an alarm triggered. You can set the interval to write log as 5s, 10s, 30s, 1min, 2min or 3min to enable writing log when there is alarm triggered.

【**Send Alarm to Client**】Select sending alarm to network clients or not.

【**Motion Alarm Sound** 】Press ··· button to selects a ".wav" sound File for a motion alarm. If there is a motion alarm, the sound file will be played. Also, you can test it by pressing Test button.

【**Video Loss Alarm Sound** 】Press ··· button to selects a ".wav" sound File for a video loss alarm. If there is a video loss alarm, the sound file will be played. Also, you can test it by pressing Test button.

【**Motion Send Email**】Set sending Email disable or enable when there is motion alarm triggered. You can set the interval to send an email as 5s, 10s, 30s, 1min, 2min or 3min to enable sending email.



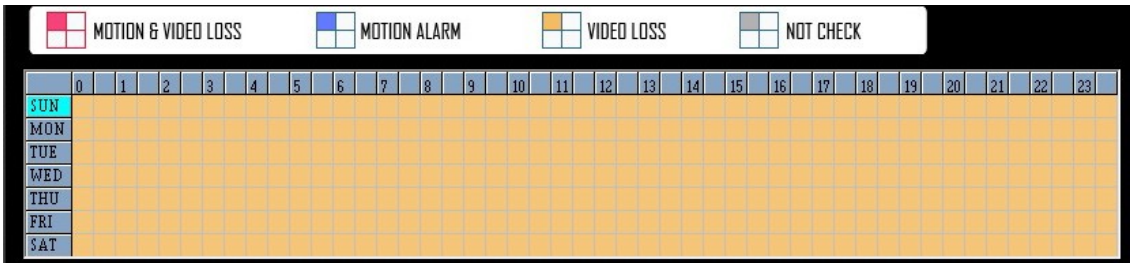
【**Motion Send SMS**】Set sending SMS disable or enable when there is motion alarm triggered. You can set the interval to send a SMS as 5s, 10s, 30s, 1min, 2min or 3min to enable sending SMS.

【**Video Loss Send Email**】Set sending Email disable or enable when video loss.

【**Video Loss Send SMS**】Set sending SMS disable or enable when video loss.

【**Trigger DO Output**】Select which DO ports will be triggered by above camera alarms.

Schedule Setup (Setting for cameras of local board cards, IP Cameras are not included.)



1. Motion & Video Loss (Red): Hybrid NDVR System responds with Motion Detection and Video Loss alarm in specified time;
2. Motion Alarm (Blue): Hybrid NDVR System only responds with Motion Detection alarm in specified time;
3. Video Loss (Yellow): Hybrid NDVR System only responds with Video Loss alarm in specified time;
4. Not Check(gray): Hybrid NDVR System doesn't respond with any alarms in specified time.

Note:

Check Alarm Setup (including Motion & Video Loss, Motion Alarm and

Video Loss) is inactive during Motion Detection Record. It is only active during alarm setup. However, it IS active during motion detect alarm out and motion detect alarm to network.

2.5 E-mail & SMS Setup

Press button to access E-Mail setup.

Note:

Before you set the E-mail setup, you should pay attention to several points as below:

The alarm that triggers E-mail sending includes two types: Camera-related alarms (Motion detection alarm & Video loss alarm) and Sensor-related alarms.

For Camera-related alarms, you should set in Motion Detection Setup and check alarm in Motion Detection Relay. For Sensor-related alarms, you should set to check sensor and select cameras to be triggered in Sensor Setup.

When you enable system capture image as attachment of E-mail, the system will capture a still picture of the alarm camera to be sent as an attachment of the E-mail.

2.5.1 EMAIL Setup

【**SMPT Server**】SMTP server address, e.g.: mail.jstDVR.com (your mail server),

【**SMPT Port**】SMTP port for connect request.

【**Auth. Type**】Logon mailbox, operator will select SMTP authentic type. Or select “simple login”.

【**Login User ID**】Mailbox’s ID.

【**Login Pass**】Mailbox’s password.

After finished setup, user can press Send & Test to test whether email can be sent successfully.

【**Send To**】Email address notification should be sent to

【**Copy To**】Additional email address notification should be sent to

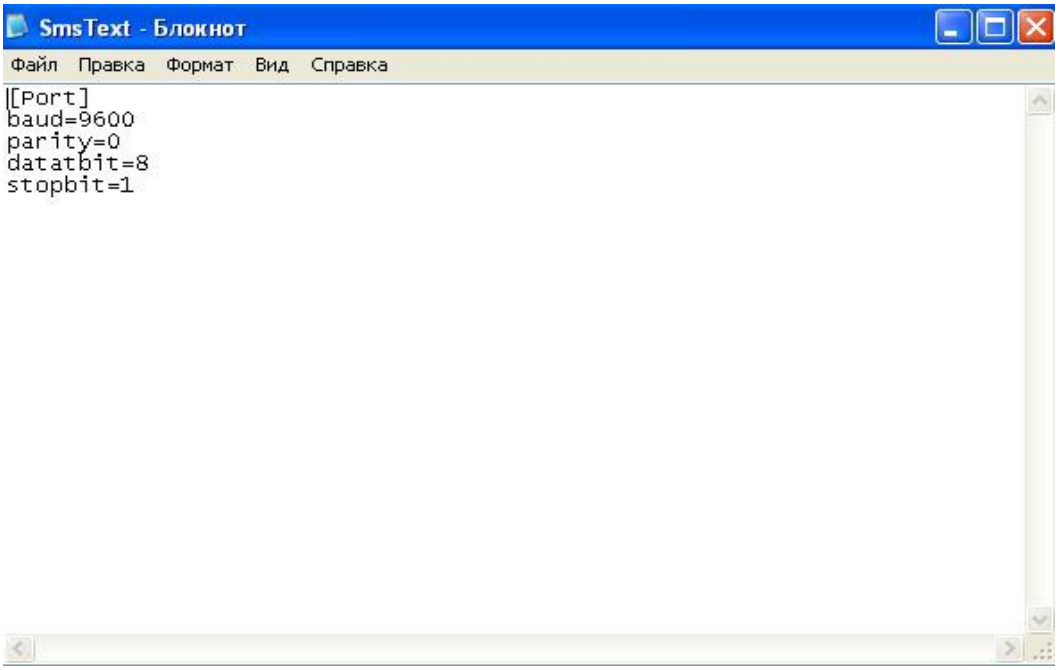
【**Sender Email**】Email address of sender.

【**Email Title**】Enter title of the E-Mail to be sent.

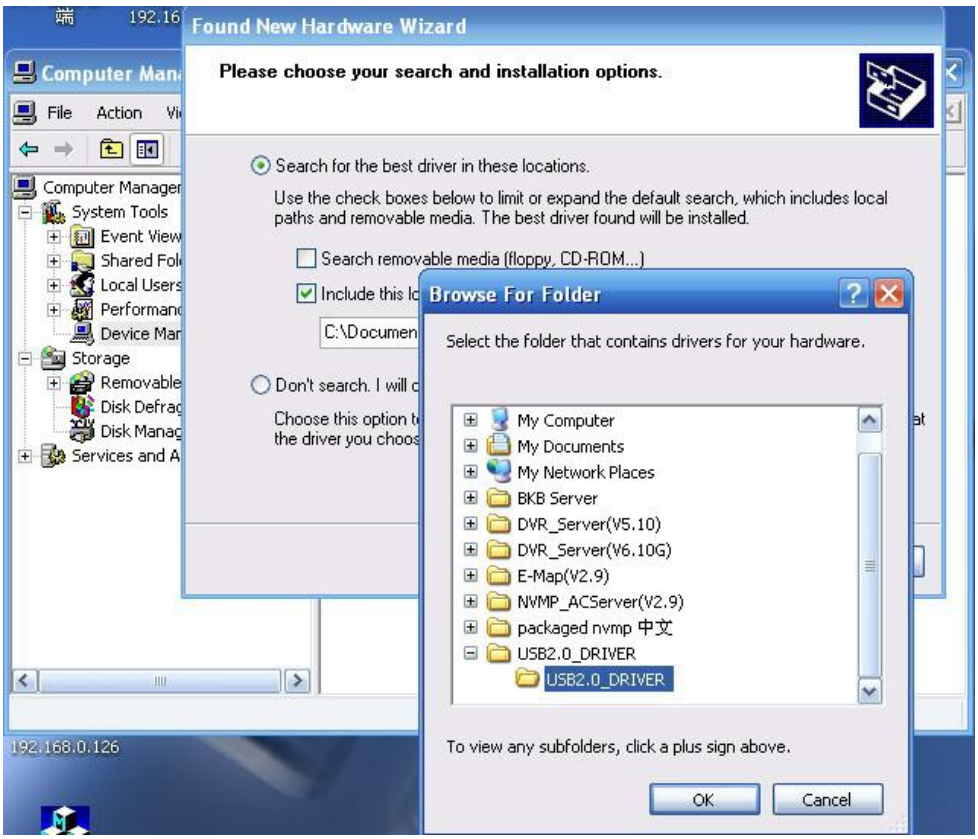
【**Email Screenshot As Attachment**】When alarm be triggered, the system will grab a picture, you can choose whether send the picture as attachment to the E-mail.

When setup is finished, user can press Send test message to test the function.

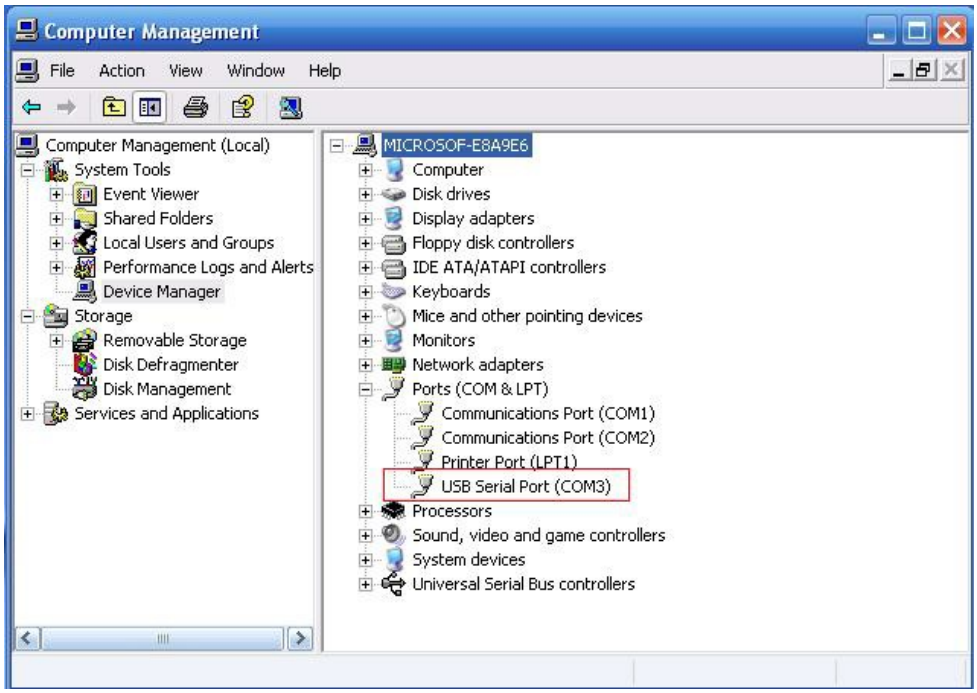
User can modify GSM modem's communicate parameters manually in C:\Program Files\Hybrid NDVR Server\SMS_LIB as bellow:



After you insert the GSM MODEM, install the driver.



When the driver is installed, the interface as below will be displayed:



2.5.2 SMS Setup

【SMS Device】Set the SMS send mode, you can select the SMS pdu mode or the SMS text mode.

【SMS Use Com Port】Set the Com Port of your modem to send SMS.

【Hybrid NDVR Host Name】Set a name to sign the Hybrid NDVR which on the SMS displays.

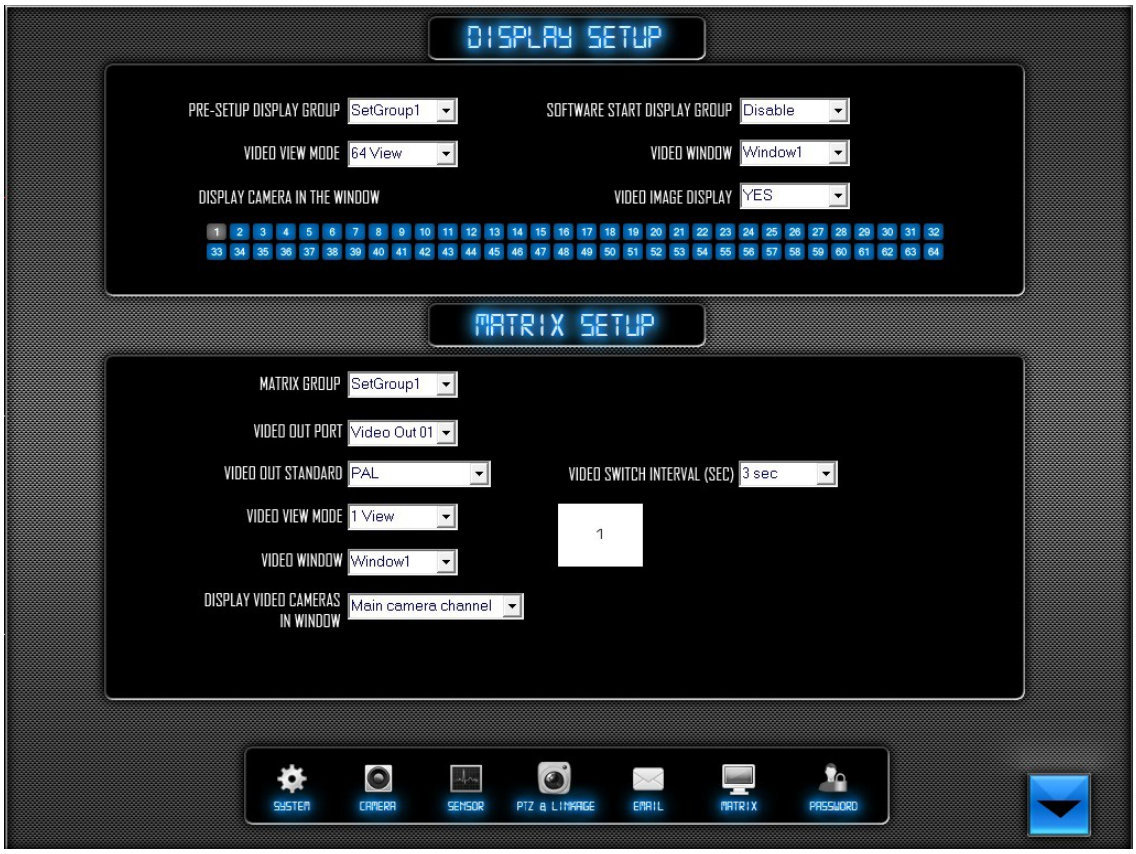
【Mobile number 1】【Mobile number 2】【Mobile number 3】Set the mobile number to receive the SMS,SMS will be sent to the mobile which you set. Press

to test whether the SMS can be sent successfully after setup.

Note:

The mobile number should be made up of the international code and mobile phone number .E.g.: In China, the mobile number is “86130****1234”.

2.6 Digital Matrix Setup



2.6.1 Matrix Setup (For Enterprise and HD-SDI Cards ONLY)

【Matrix Group】System operator can set a groups of video images to be sent out through the TV Out port on the DVR Card(s). Each group can have a different display mode. The maximum number of groups is 16.

【Video Out Port】Select the video port of the card you'd like to use.

【Video Out Standard】Allows selection of PAL or NTSC.

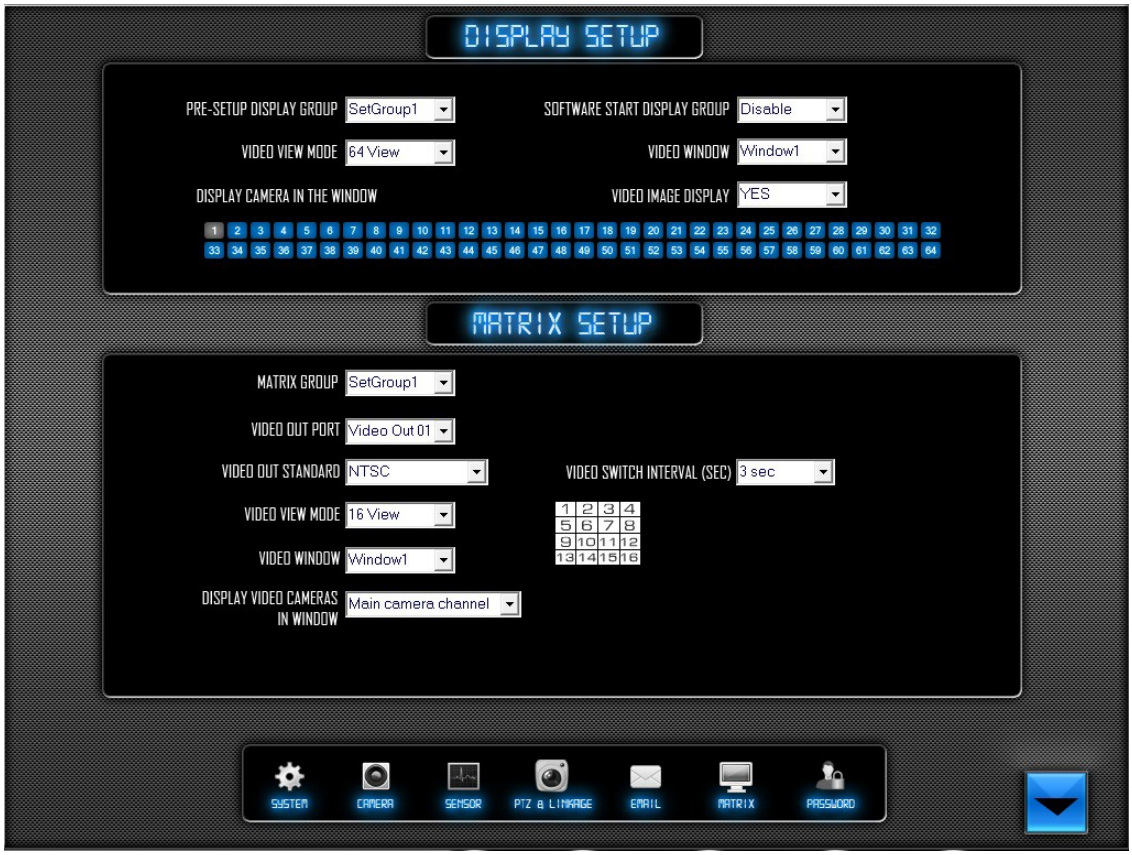
【Video View Mode】Select video output display mode, there are 1split , 2split , 4split , 9split , 13split and 16 split .

【Video Window】【Display Video Camera in window】After selecting video split mode, you can select which camera to display in each window. E.g: For Window 1, you can select any one of multiple cameras to display in that window. If you select more than one camera to display in Window 1, it will rotate between the two cameras.

【Video Switch Interval(sec)】Sets interval that each window rotates between cameras when more than one camera is selected for display in a window.

2.6.3 VGA/HDMI Output Setup for HD-SDI and 8 Channel Enterprise Card

Our new HD-SDI card supports VGA or HDMI output, the settings are as follows:



Here you can select to output 1/4 split mode, then select to display camera in corresponding output window. Tour function is supported.

If you find there is frame loss for recording while doing VGA output, please adjust the resolution/image quality/frame rate properly.

2.6.4 Display Setup

【Pre-setup Display Group】System operator can set groups of cameras to be displayed for fast preview, including its display mode and cameras. Up to 16 groups can be set.

【Software Start Display Group】Select the display group that displays when the DVR Software launches.

Note:

If this function is disabled, the system will display SetGroup1 by default. Because of this, a different group should be selected when this function is enabled (enabling and selecting SetGroup1 would produce the same results as disabling).

【**Video View Mode**】Set the split mode, the split mode is same as main window's display split mode. There are1, 4,9,13,16,20,25,28,33,36,40,49 and 64 partition mode.

【**Video Window**】【**Display Camera in the window**】After video split mode is set, there will be corresponding windows in the drop down list. Select one camera among 1-64 to be shown in a selected window from the list.

【**Video Image Display**】Select between YES or NO to display the camera in current window or not. You can also use Close/Open Image Display in context menu.

2.7 Password Setup

2.7.1 User Information

【**Local Password**】Select "Enable" to activate the lock button in main window. When enabled, only authorized users can log into DVR .

【**Auto lock time**】Controls when the DVR locks after a period of inactivity.

【**Network Password**】Select "Enable" to enable User Manage mode for

Client. When you enable this function, client must pass the authentication to connect with Hybrid NDVR.

【**User Name**】Input new User ID in this box when add a new user to system.

【**Auth. Level**】Select user type. Only Manager can enter Settings screen and make changes and have the right of user management.

【**Password**】Set new user or selected user's password.

【**Password Confirm**】Confirm password again.

【**Note**】Input your description of this user.

【**New User**】Press NEW USER button to edit the user you want to add in the 【**User Name**】Blank. Input User Name and select Auth. Level (Administrator or Operator) and then click Add to add a new user.

Note:

1. Only Administrator has the right to add or delete a user. However, Administrator has no right to manage the password of any user.
2. The default password is null, only the Administrator can modify it. When user login in the system at the first time, he can type in a password as he like. Then, system will pop up a message to ask him whether he wants the system to remember the password for next login.He can click YES to remember the password that he must input the same password to get into the system,on the other hand,he can also choose NO to give up the operation previous.
3. There is no way to restore but delete the user if user forgets his password.

【**Add User**】 Click ADD USER icon to add new user you edited to user list.

【**Modify User**】Select a user from user list, then click MOD USER button to modify it.

【**Delete User**】Select a user from user list, then click DEL USER button to delete it.

2.7.2 User Right Setup

【**Camera View Right**】Select cameras can be viewed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to access all live images. To deny access, you can click the desired cameras button and the

color will change from blue to gray (by default, user “admin” has the right to modify all functions; This user cannot be modified)

【Camera Playback Right】Select the cameras can be play backed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to playback video data of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【Camera Audio Right】Selects the camera audio accessible by each user. These can be both local and IP cameras. By default, every user can hear all cameras. To deny access, click the desired camera button and the color will change from blue to gray.

【PTZ Control Right】Select the cameras that related PTZ can be controlled by the user you are setting. The cameras you can select include both local and IP Cameras.

【User Access Right】Select operational tasks, granting or denying rights. Operational tasks are normally reserved for administrative accounts. Operators are rarely granted rights to adjust camera color, exit program, explore files etc.

When manager doesn’t want some operators to manage disk or backup data locally, he should "uncheck" the rights for those users. For example, if “admin” doesn’t want to authorize “user” to modify "Disk Management" or "Local Backup", he should select “user”, click “Modify”, and uncheck the box in front of “Disk Management” and “Local Backup”.

【Setup Right】Select setup rights to grant or deny user privileges.

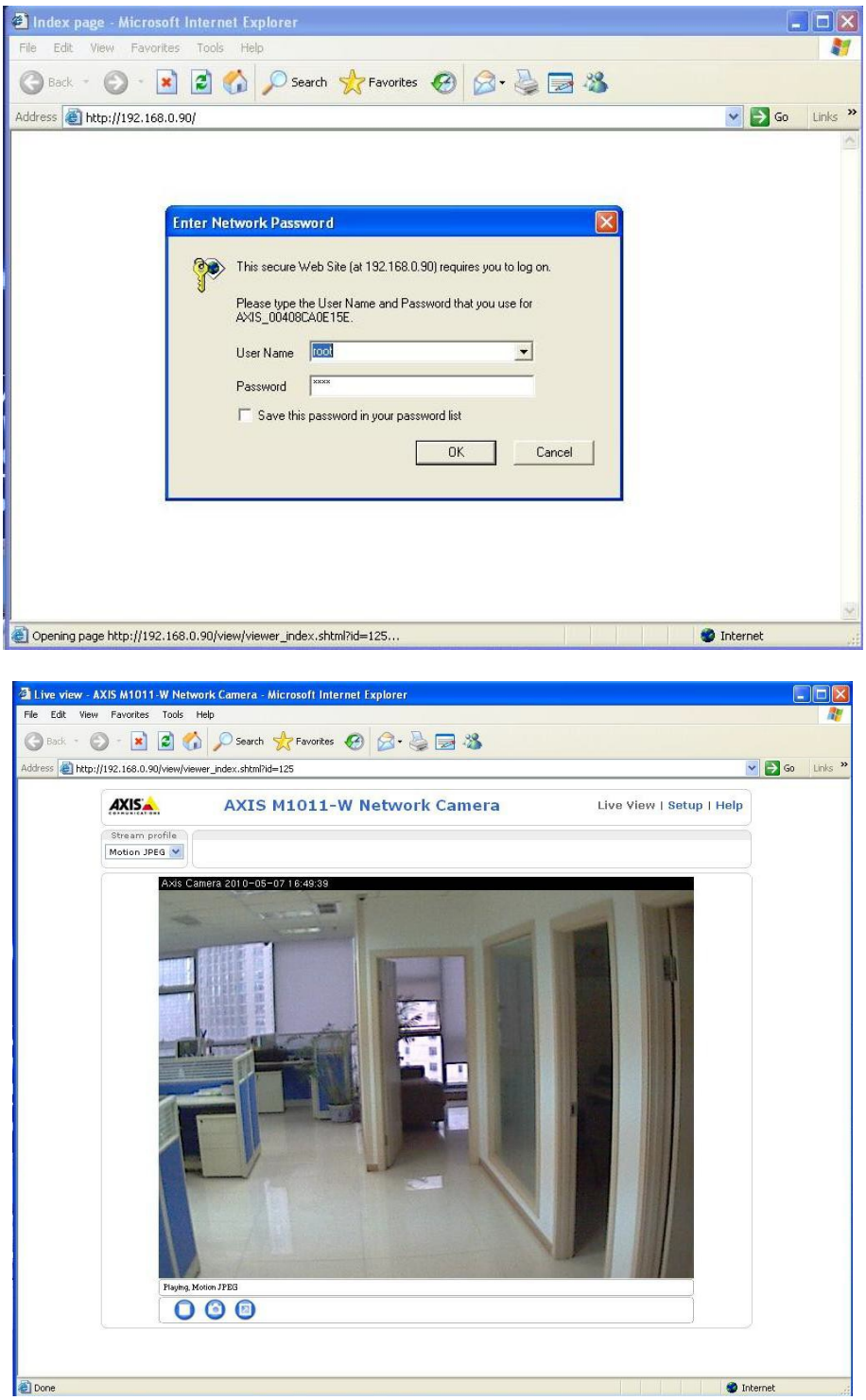
Chapter3 IP Camera Setup

Note:

For IP camera setup, its alarm and related setup is only available when you set remotely. The local setup of PC Hybrid NDVR is not available for IP Cameras except Recording Schedule in ***Camera Setup.***

The remote setup interface of Saber Series IP cameras is as below:

For other series IP cameras, such as Sony SNC110/160, ACTi Series IP, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IP, Camtron Series IPC and Axis Series IPC, you will enter the IE interface automatically when you press “IP Camera Setup”. You'll also have to install Active X.


Index page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.0.90/
Go Links
Enter Network Password
This secure Web Site (at 192.168.0.90) requires you to log on.
Please type the User Name and Password that you use for AXIS_00408CA0E15E.
User Name root
Password ****
Save this password in your password list
OK Cancel
Opening page http://192.168.0.90/view/viewer_index.shtml?id=125...
Internet
Live view - AXIS M1011-W Network Camera - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.0.90/view/viewer_index.shtml?id=125
Go Links
AXIS M1011-W Network Camera
Live View | Setup | Help
Stream profile
Motion JPEG
Axis Camera 2010-05-07 16:49:39
Playing, Motion JPEG
Done
Internet

Remote Setup Interface of Axis IP Camera

3.1 Functional Buttons

There are 6 buttons in each page. They are Upgrade, Restart, Time adjustment, Save and Exit.

IE Setup Get into the IE client of IPC.

Upgrade The system can upgrade to the server remote. Click this button, and select the right file.

Restart Some settings will only come into effect after device rebooted.

Time Adjust Adjust date and time of DVS or EMDVR. The new date and time will sync with CMS client computer.

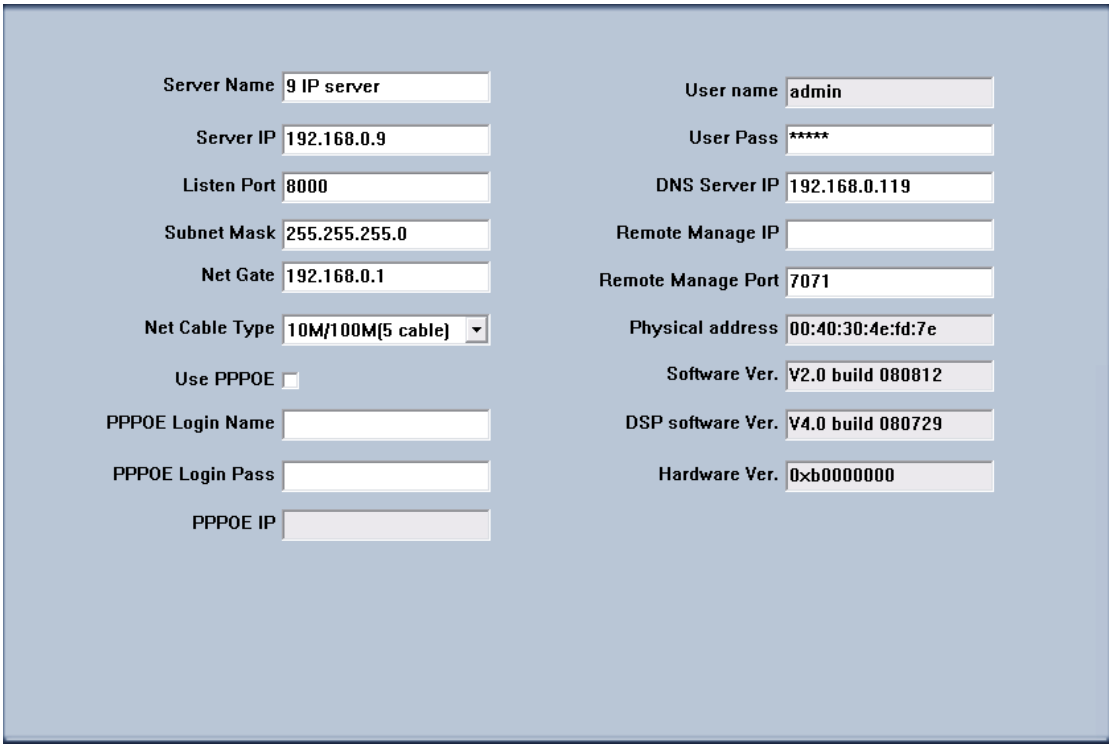
Save After setup is finished, click this button to save the setup.

Exit Exit setup.

Remote setup for DVS includes Server, Channel, PTZ, Sensor and Alarm.

3.2 Server Setup

Press Server button to set server parameters remotely:



In the server window, some blanks' background are gray. Those parameters can't be modified. Other blanks whose background is white, you can set them remotely.

【Server Name】Enter the name description for easy identification. If DNS is used to obtain the IP address, this name will be

used.

【IP configuration and related】

【Server IP】
【Port】
【Subnet Mask】
【Net Gate】
【Net Cable Type】

These are network configuration; you can set LAN or Internet IP according to your need.

【Connection configuration and related parameter】

【If use PPPOE】
【PPPOE Login Name】
【PPPOE Login Pass】

If system uses PPPOE to connect with web, please select it and input the PPPOE login ID and password.

【User Pass】Set the user password of DVS remotely, after that operation you should change the Login Pass to corresponding value in Add / Modify server. Otherwise, you can't connect the DVS correctly.

【DNS Server IP】 If use DNS, input the DNS host IP address.

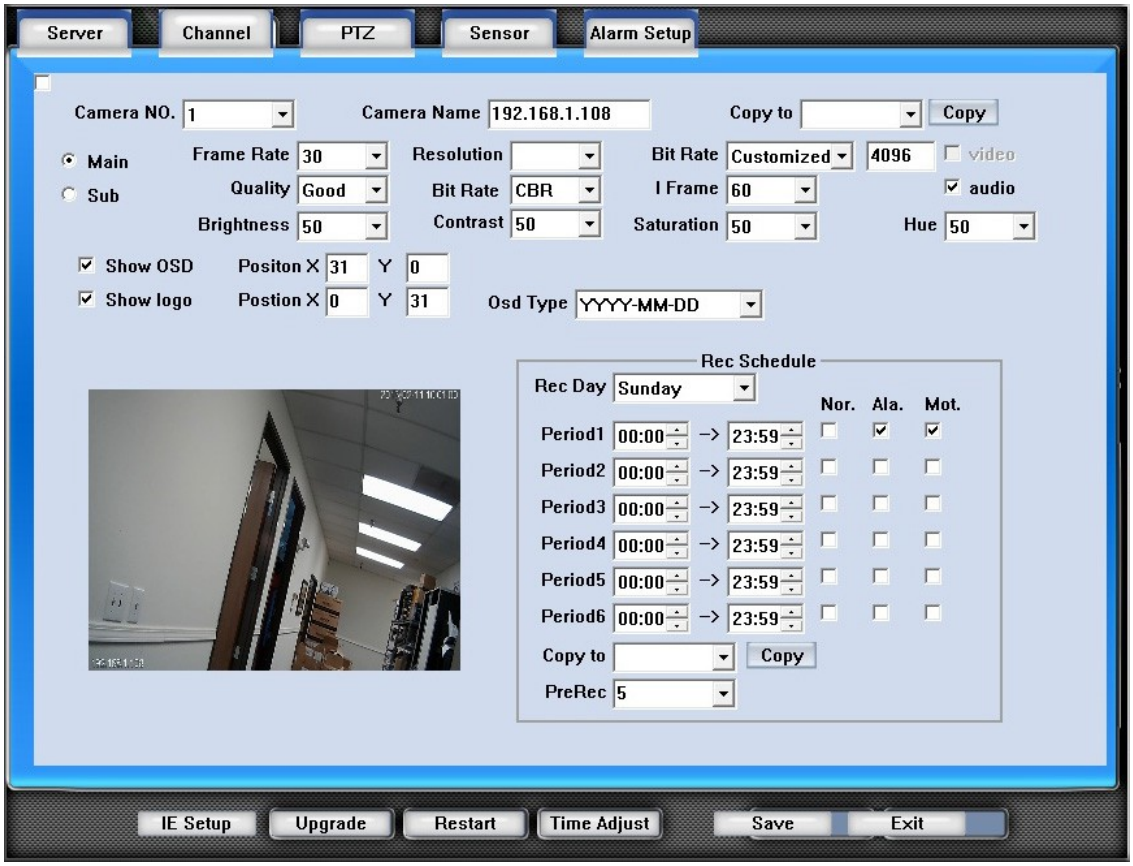
【Remote manage】
【Remote manage IP】
【Remote manage port】

Set the IP address and port of host server who will receive the message upload from foreside server

3.3 Channel Setup

Press

button to set channel parameters.



This section contains the parameters to designate a name for every camera connected, to enable or disable show LOGO and OSD, and to set display type of OSD & LOGO as well as record resolution, record type, record quality and frame rate, etc.

【Camera】Select the camera to be set from the drop- list.

【Camera Name】Enter a name description for easy identification.

【Frame Rate】Select the record rate of camera from drop-list.

【Midstream】【Sub Stream】Select Midstream or Sub Stream for the current cameras.

【Resolution】Set the resolution at which the video files will be recorded. Choices are DCIF, CIF, QCIF, 2CIF and 4CIF. The higher the resolution is, the more disk space needed.

【Stream Type】Select video and audio or only video record. If you want to preview and record audio, please connect a sound pick-up to your IP camera. You must enable the audio of your selected stream in IE setup.

【**Image**】Set the quality of the image to be recorded. Select from worst, worse, normal, good and best.

【**Bit Rate Type**】Select bit rate type from Variable Bit Rate (VBR) and Fixed Bit Rate (FBR) record:

VBR range= Poorest, Poor, Medium, Good, Best.

FBR range = 45 Megabytes/Hour to 400 Megabytes/Hour.

【**Max Bit Rate**】Select the maximum bit rate for Variable Bit Rate (VBR) record.

【**Show LOGO/ OSD/ Week**】If you check those boxes, system will show corresponding information on screen.

【**Position**】Set the position of OSD or Logo by entering the X and Y coordinate directly.

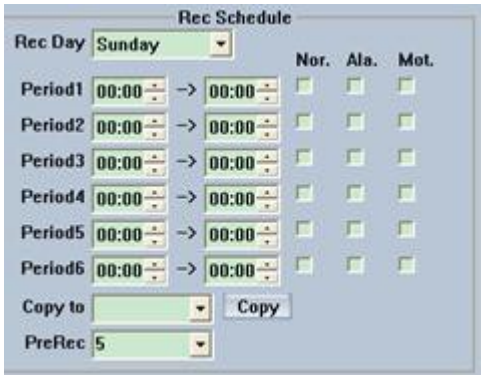
【**OSD**】Set the display attribute of the OSD & LOGO. There are four types of display modes: Clarity-Glitter, Clarity-Not Glitter, Not Clarity-Glitter and Not Clarity-Not Glitter.

【**OSD Type**】Select the type of OSD for the Week.

【**Privacy Mask**】You can check this box to set the privacy mask on the below image directly, and you can clear some privacy masks by pressing

button.

【**Record schedule**】You can set record schedule in following chart.



Note:

This record schedule is only available to EM-DVR. There are 4 time segments every day. Every segment has a start time, an end time and a record type. The time segment is set in sequence; every segment can't be overlapped, included or skipped with any other.

【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

, Set the time to post or pre the record.

3.4 PTZ Control

Press

button to set PTZ.

In this screen, you can define the PTZ protocol and set the Preset Position as well as the plan to execute them automatically.

【Camera】Select the camera to be set from the drop-down list.

【Baud rate】Set baud rate according to PTZ protocol from the drop-down list.

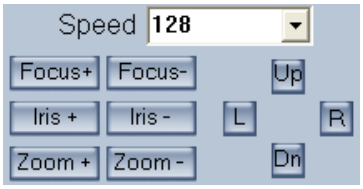
【PTZ Protocol】Select the communication protocol for the PTZ camera from drop-list.

【Copy to】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-down list, and press

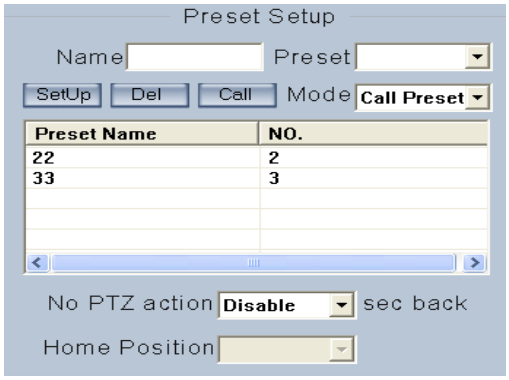
button.

【PTZ Address】Set the address of the decoder, which must be matched with the value of dipswitch in the PTZ.

【Speed】Set the speed of the PTZ.



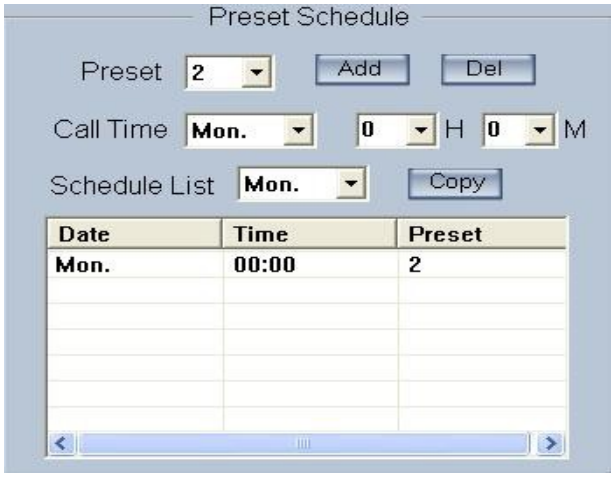
【Preset position & schedule setup】Define preset position and set time to call preset position automatically. System can add and delete plan time.



【**Name**】 Set the name for the current preset. 【**Preset**】 Set the preset number for the current camera SetUp Setup the preset by current configuration. Del Delete the finished Preset. Call Call the Preset if the Mode is Call preset. The mode is save preset; you should save the preset and shouldn't call the preset.

No PTZ action Disable sec back Set disable or how long the PTZ will come back to the home position when there is no PTZ action.

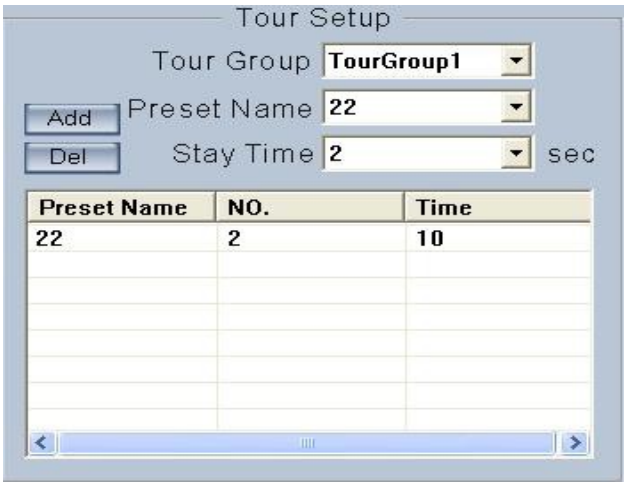
Sch.



【**Preset**】 it can add the preset into the Preset Schedule, the preset set completed in the Auto Pre yet.

【**Call Time**】【**Schedule List**】Sets the time that a preset should be called.

Tour

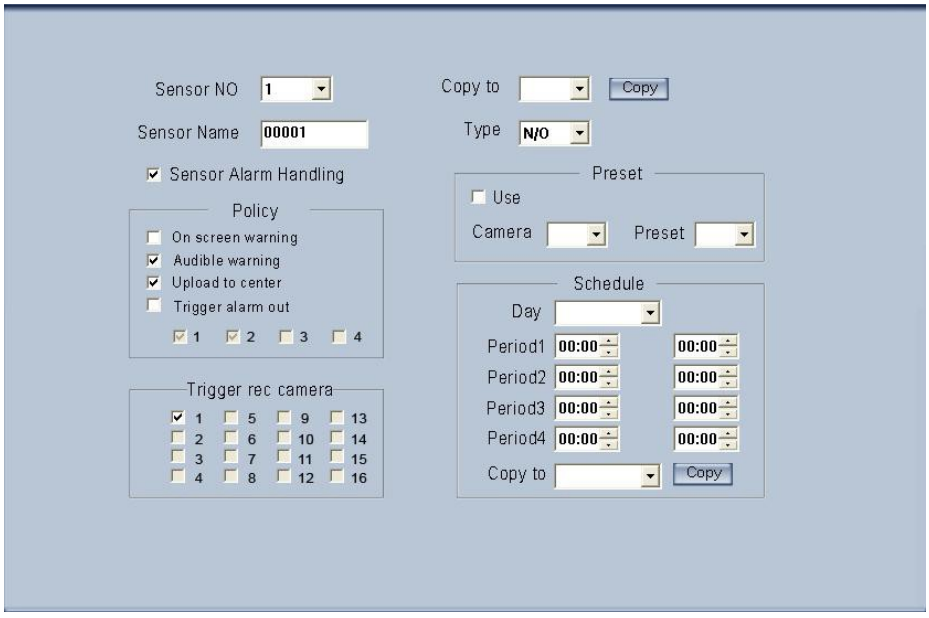


Tour Group

Add the Preset cameras into the Tour Group and set the Stay Time for one tour group.

3.5 Sensor Setup

Press **Sensor** button to set sensor parameters.



【Sensor NO】Select one sensor to be set.

【Sensor Name】Enter the name description of the sensor.

【Type】Select alarm type (sensor type) from “NO”(Normally Open) or “NC”(Normally Close).

【Policy】Selecting “Sensor Alarm Handling” firstly, handling policies will be available as follows:

On screen warning—Display the alarm information on the monitor.

Audio warning—Signals alarm to sound by voice.

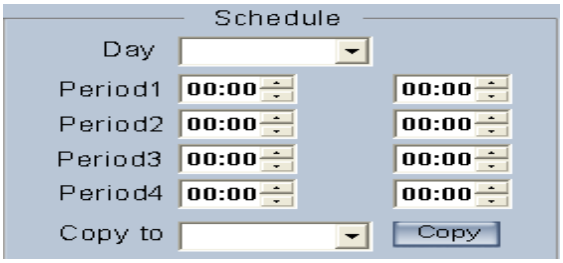
Upload to center—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【Trigger record camera】Set which cameras record when an alarm is triggered.You can select one or more channels. When an alarm is triggered, the cameras will start recording footage and the screen will preview those cameras (warning on monitor is enable).

【Preset】Set preset position the camera changes to when an alarm is triggered.

【Schedule】Sets WHEN the alarm system will be active. Times should not overlap.



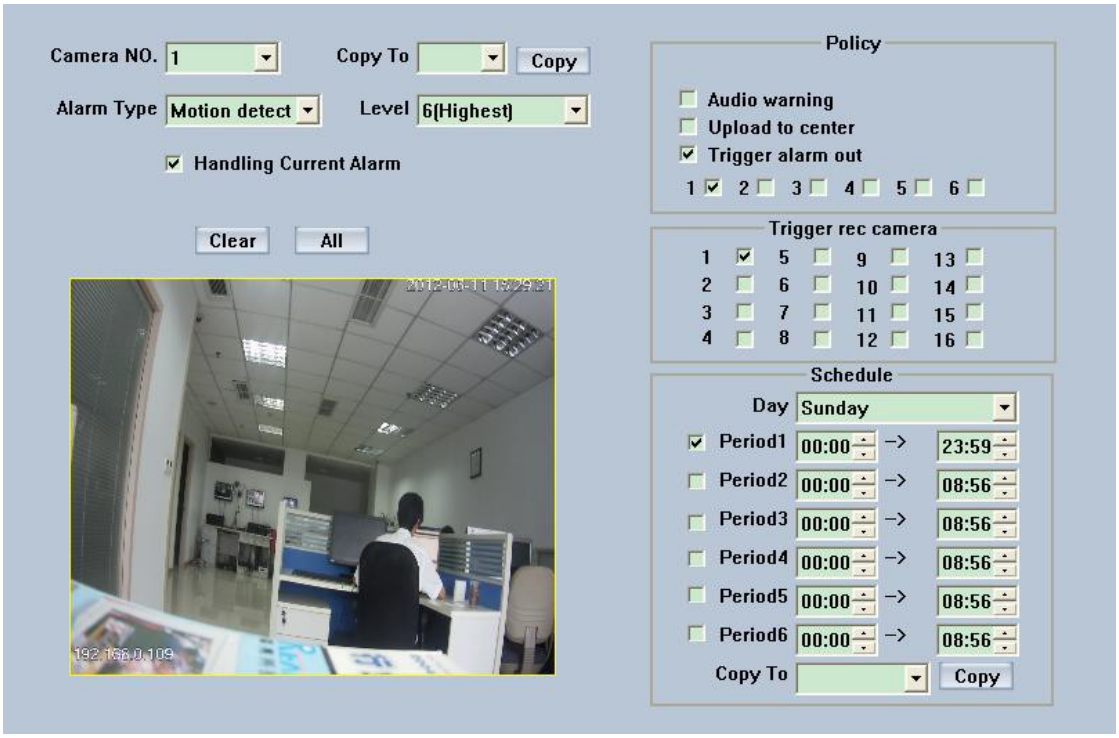
【Copy to】"Copy To" allows you to copy the alarm schedule to another camera. Select the channel number you'd like to copy the schedule to from the dropdown, and press

button.

3.6 Alarm Setup

Press

button to set alarm parameters.



【Camera】Select a camera to be set from the drop-list and you can copy the configuration to the other cameras by clicking copy button.

【Alarm Type】Select alarm type: Motion detection, Tempering alarm and Video Loss.

【Level】Select sensitivity levels from 1 (the lowest level) to 6 (the highest level) for the alarm.

【Set motion detection areas】Left-click mouse and drag it on the screen to select several motion detecting areas, you can also select the whole area by pressing the All button. You can clear the selected area by clicking the Clear button.

【Policy】When “Handling current alarm” is selected, the following options will be available:

On screen warning—Display the alarm information on the monitor.

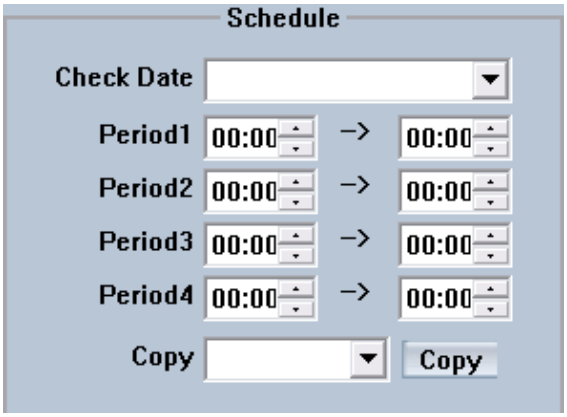
Audio warning—Indicate the alarm with voice.

Upload to center—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【Trigger record camera】Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【Schedule】Set alarm input schedule time. Select the date first, then set time segment according to the sequence. The time of each segment should not overlap the others and no gaps are allowed. After a time segment is chosen for the selected date, you can copy the parameter to other dates by selecting a day and pressing copy button.



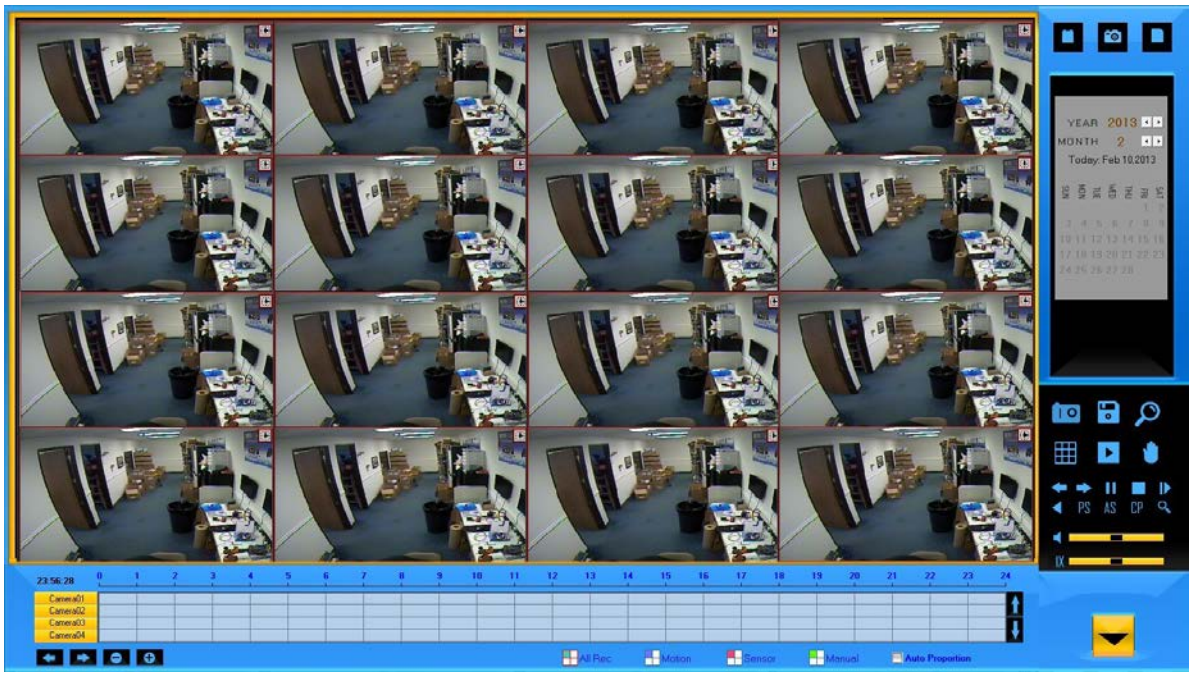
【**Copy to**】After finishing one channel, you can copy the current setup to the selected channel from the drop-list by pressing button.

Chapter4 Playback

4.1 Main Interface

Click

button in main interface to enter playback interface.



4.2 Playback

4.2.1 Select Date

Select one window (the 1st one in default), and then click

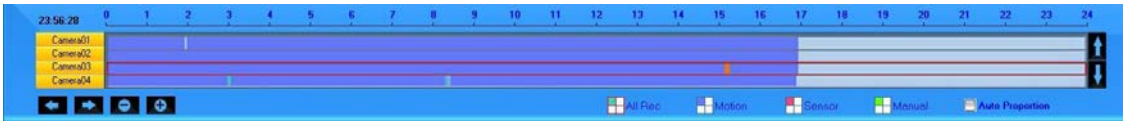
button to show the date.

The blue dates contain recorded data. The green date is the date selected. The gray dates signify no recordings. Only blue dates can be selected and when they are selected the camera window will appear automatically to show which cameras have recorded footage available.

Click or to change month and year of search data.

The date must be selected first for the sub-playback menu to work properly

4.2.2 Select Record Type



Press the icon next to "Motion," "Sensor", or "Manual" when you want to playback their respective types of recordings exclusively.

4.2.3 Select Camera

After the date is selected the system will show the camera state of that day, or click button directly to show the cameras state of current day. The number button with navy blue means this channel has record data. By pressing it directly on the numerical panel, Hybrid NDVR system will play back recorded data from the first recorded file.

1. Synchronized Playback

Click

button to synchronize the time of all playback channels. You can also keep all channels synchronically in pause and Next Frame.

2. Smart Search

(1). Function Introduction:

This function allows users to draw a zone on a video image and do a search for any motions, missing objects, or unattended object events occurred in that zone. It can help you find recorded video you are interested in.

Note:

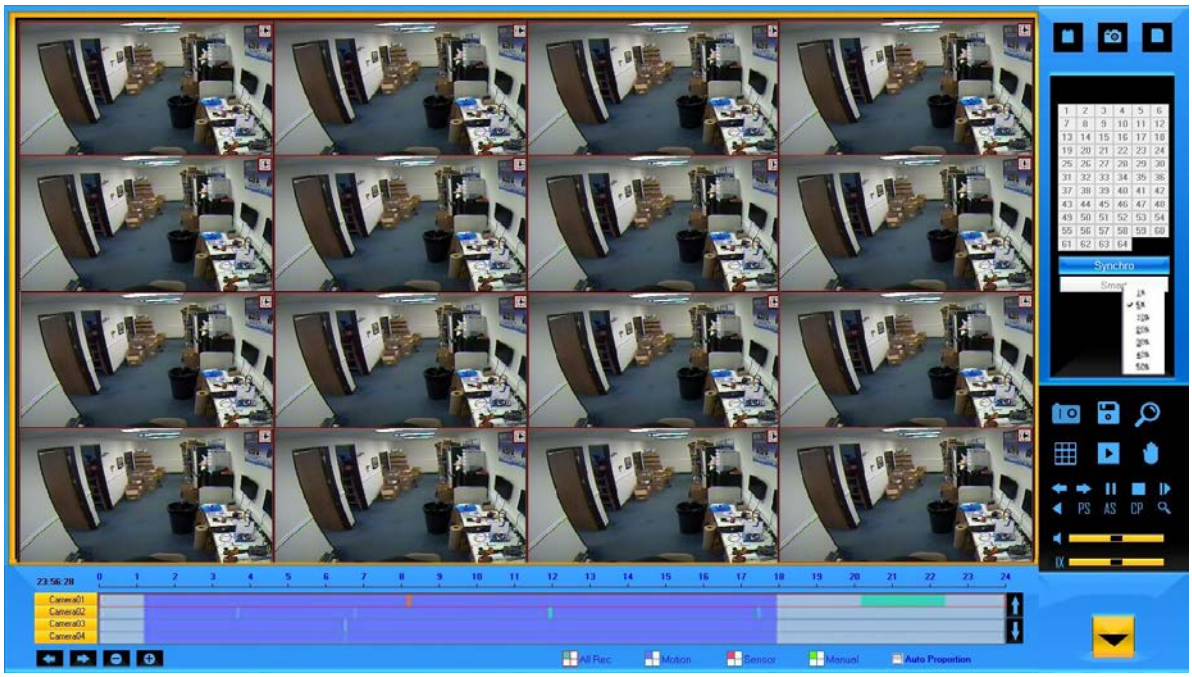
Smart Search accuracy is decided by sensitivity value and threshold in Motion Setup.

(2). Operation and Example

Press

button, then select a search area, the system will play all motion occurred within this area from previous 3 seconds to next 3 seconds when the motion occurred. Pressing this button again will end smart search. eg:

1) There is a telephone on the desk (Picture ①);
2) But it disappeared now (Picture ②);
3) If you want to know where the telephone is, you can select this area on the image to do a smart search when playback the video.



When you press the Smart Search button, you should select the area percent by single clicking the right mouse, if the motion percent of the area is above the select percent, it will be shown.

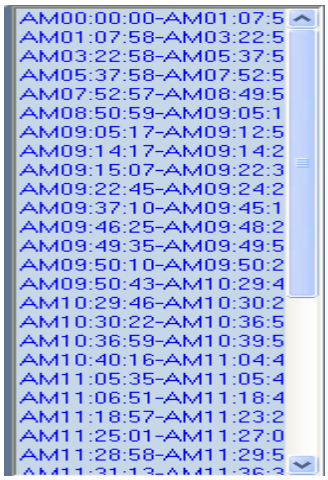
Note:

Press synchronic button while smart search is running, system will end smart search;

The sensitivity of the smart search is same as motion detection. If you set

a very low sensitivity, the system will search even that there is no motion in the specified area. However, if you set a high sensitivity, it is possible that system will miss small range motion in the specified area. So you should set the sensitivity according to the surroundings.

4.2.4 Select File



After selecting the camera to play, click button to show all the files for this camera.

By default, system will play back video file from the first one. In this screen you can select the file you want to play by clicking it directly.

The camera list below the window shows the recorded data of the day you selected. Double click any time with record data, a red mark will be there. Then use to enlarge the time bar, so that you can select an exact time you want to playback

Users can scroll the mouse to zoom in / out the video in local playback. When selecting a played camera, scroll your mouse, software will zoom in / out part of the video use the point mouse stops as center. Also when you click on the time bar and scroll your mouse, you can zoom in / out the time bar.

You can use to move the recorded data window left or

right to see the full time range.

Press or button to see the recorded footage from other cameras, The vertical line means the exact time when system is playing back now.

4.3 Play File and Related Operations

Press this button to set partition mode of Window, there are 1，4，9and 16 splits. To reduce the load of CPU you should only select the number of windows needed for playback.

Press button to open all playback windows in sequence according to the order of the cameras.

Note:

If you press this button as soon as you enter the playback interface, all the cameras will be played back from the beginning of this day when there is

record data. For example, there is record data from 8:00 AM to all cameras, then, they will be played back from 8:00 AM. If you select a point of time on the time bar and then press this button, then, all the cameras will be played back from that time.

Press button to close all playback windows.

Previous / Next Minute: press either of these two buttons to look previous or next minute.

Next frame: press this button continuously to play video next frame, the speed is determined by the following playing speed adjustment bar.

/ Play/Pause: This button will alternate between Play and Pause. When it is playing, it will show and press it to stop, and then the button will show . When you select reverse playing, it will show to play by pressing it.

Press this button the select camera will reverse playback, and press it again, the reverse playback will stop.

Stop: press this button to stop playing.

Image zooms out. Press this button, Left-Single-Click an image; quarter of the image will be enlarged. Right-Single-Click the image again, it will resume the normal.

Adjust the audio recording: drag the bar to adjust the audio and click the left button to clear the audio.

Adjust playing speed: drag the bar to adjust the playing speed and click the left button to resume normal playing speed.

Note:

It is not suggested to use this feature on more than 10 channels simultaneously because of the demand it places on system resources.

4.4 Capture Picture

Click capture button to capture a still picture. When one is captured, there will be a dialog to ask for a file name. After your confirmation,

you will be asked to input the save path. When you capture a picture next time, it will be saved to the previous path without ask you again.

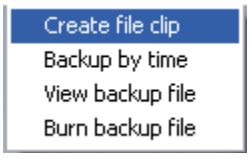
4.5 Backup

4.5.2 Backup by Time

Note:

If user has no right to backup, he will be forbidden access to “Create video file clip” and “Backup record by time”. When he clicks the two options, the dialog as below will be shown:

Click button , there are four items to be selected as below:



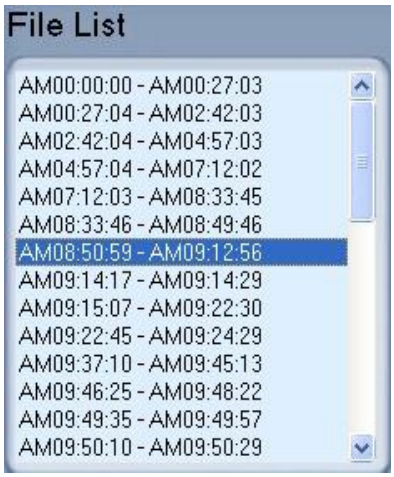
Note: This is the preferred method to back up files on your DVR System.

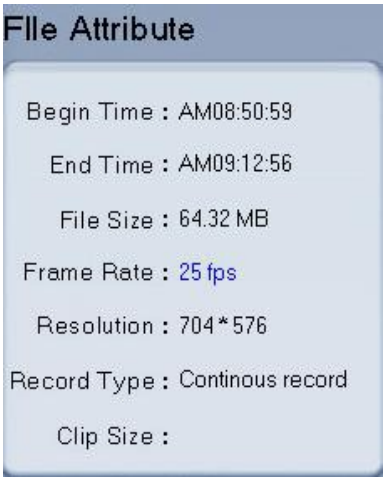
Press

to create file clip after you entered ***Backup***.

【Select channel and save path】Select channel and save path of the backup file on the top of interface.

【File list and attribute】Select a file and double-click it to play and its attribute will display below the list , including begin time, end time, file size, resolution, frame rate etc.





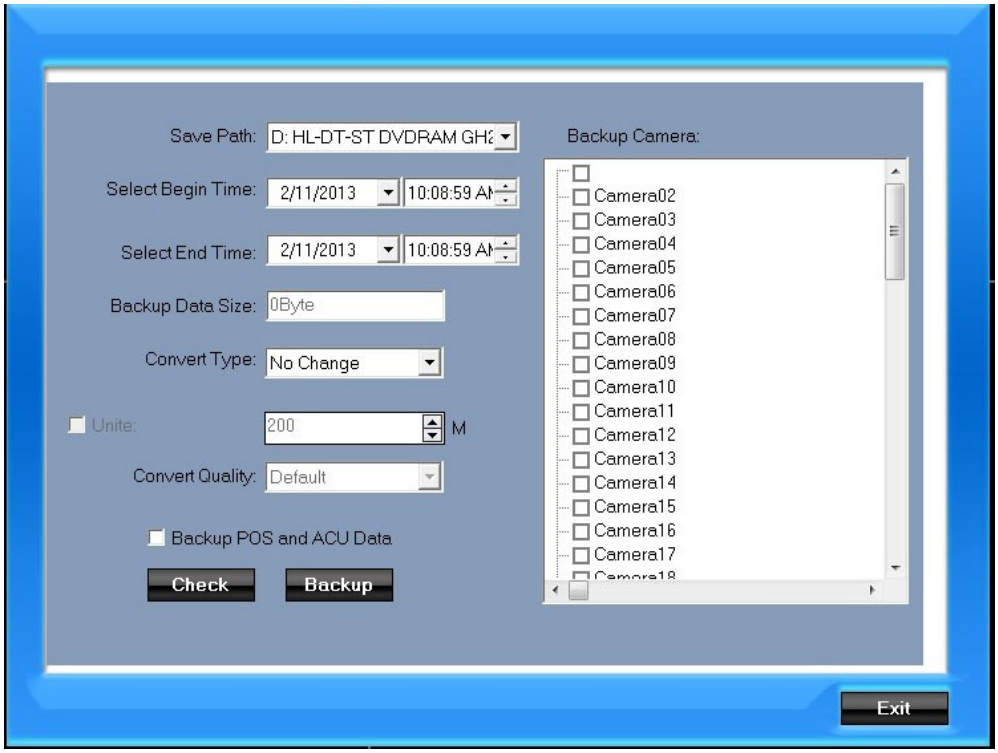
【 Play control button 】 User can press and drag slider on to control the player time.

【Beginning and stop position setup】After you select a time, press button to set it as the beginning time, and then drag the bar to select another time and press button to set it as the end time. When you finished, the file attribute on the left will show the size of the file to be created.

【Save file】After you set the beginning and end time press button to save the file, and it will ask for the file name named by you.

【Voice control】Click to control audio, press it to clear audio.

Press Backup by time to enter backup by time feature.



【Backup Path】Select path for the backup file. Backup record file to CD, DVD, Hard Drive, or Flash Drive. If backing up to CD, there needs to be at least 860MB free on the C: Drive. This is for the backup buffer. If you don't have enough space available, backup to the hard drive first, the burn the backup file to CD in Windows.

【Backup Camera】Select the backup camera. User can select more than one camera at one time.

【Select begin time】【Select end time】Select the beginning time and end time of the file to backup.

You can check the file's size by pressing Check button to show its total value.

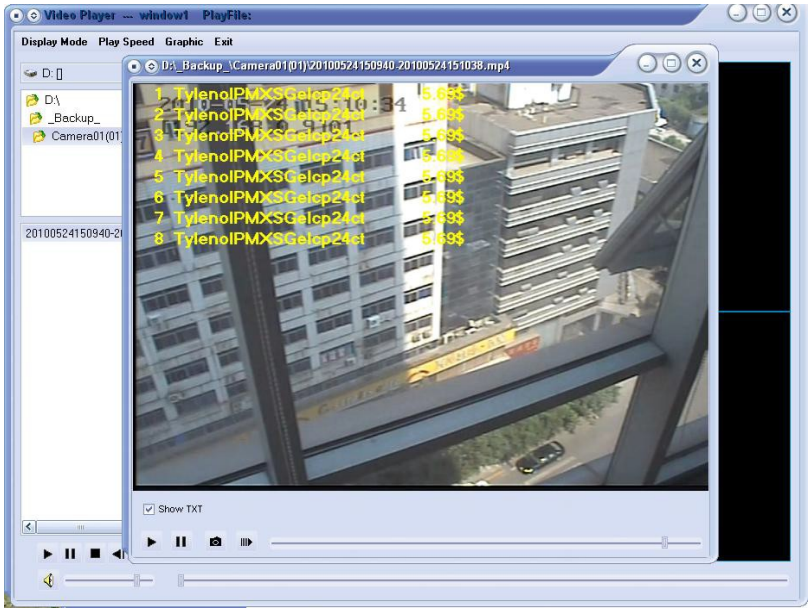
【Backup Date Size】 Show the size of the backup file. If user backup recording file to CD directly, the date size should not more than 650M. For DVD, 4.6GB is the maximum size.

【Convert Type】There are three convert types: No Change, AVI (H.264) and MSMPG4.

When "No Change" is selected and there is POS or ACU data, "Backup POS and ACU Data" can be checked. Also, when "Backup POS and ACU Data" is checked, "No change" will be selected as the default convert type. The other two types can't be selected. This type of backup data can only be played by our player named player.exe. Only "No Change" supports backup audio to the disk.

When there is POS data in the backup data, it will be played in a detached

window as below:



If AVI (H.264) is selected before backup, then, backup data can be played by Windows Media Player or other player.

If MSMPG4 is selected before backup, then, backup data can be played by windows media player without plugins.

Note:

When AVI (H.264) or MSMPG4 is selected, the video files can be combined. The size should be 50M to 500M. If you input a number out of the scope, for example, less than 50M, then, it will be adjusted to be 50M. Of course, when the number you input is more than 500M, then, it will be adjusted to be 500M.

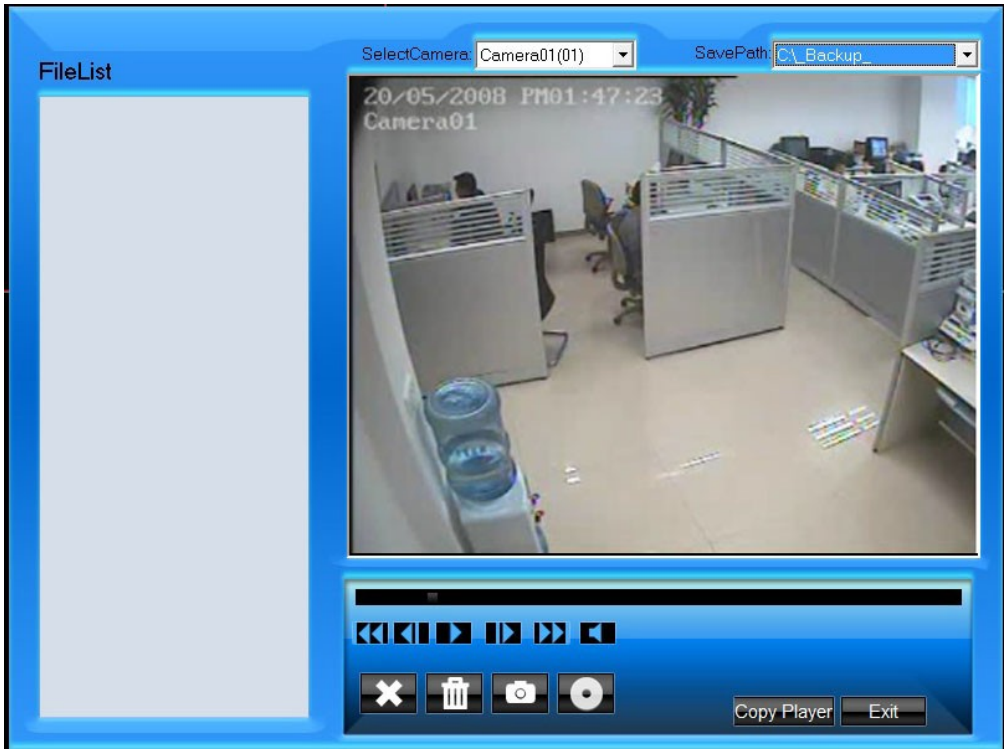
The data is combined according to the converted data. For example, suppose the size is set to 50M, the source data is 76M and the converted data is 3M, then, there will be only one .avi file in the backup folder.

Don't forget to press "Check" button before you press "Backup".

【**Unite**】Set the size for each file. You can set it to be 50M to 500M.

【**Convert Quality**】Select among High, Default and Low.

4.5.3 View Backup File



Copy Player: Copy the file player in the Save path.

4.5.4 Burn Video File to DVD/CD

Add File: Add selected file.

Del File: Delete selected file.

【Burn CD drive】Select CD-ROM driver.
【Volume label】Set the CD's label.

【Total file size】Show the size of all files will be burned to CD.

Burn CD When you finish your setup, click this button to write file to CD or DVD.

Erase CD Clean up the data of CD/DVD.

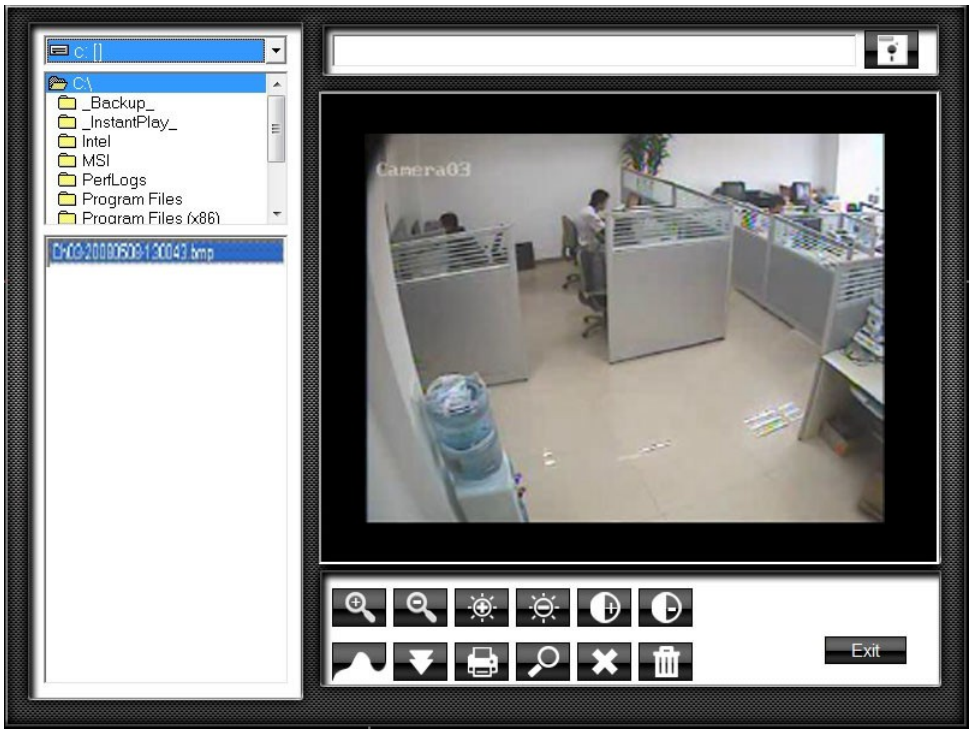
Open the CD-ROM.

Close the CD-ROM.

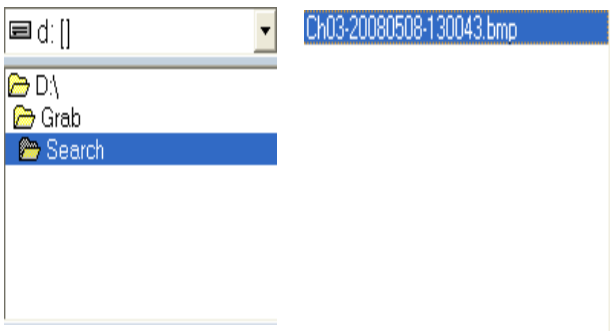
It supports DVD or CD disc backup directly, max support 4.3G DVD disc and user can erase DVD-RW disc and write again, no additional is software needed.

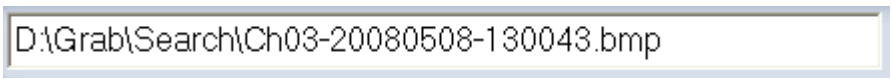
4.6 Search Captured Picture

Click to enter the search captured picture window:



【Select pictures from directory and file list】You can select a captured picture from directory list and file list in local disk and the file name will show in the top of the window.





Note:

If you want to save the picture in another file name, you can change its name and path here, with BMP or JPG as file type. Then click the button .

【Related operations】

Save the picture.

These buttons will allow you to change brightness, contrast, and zoom of picture .

Returns image to default

Print picture .

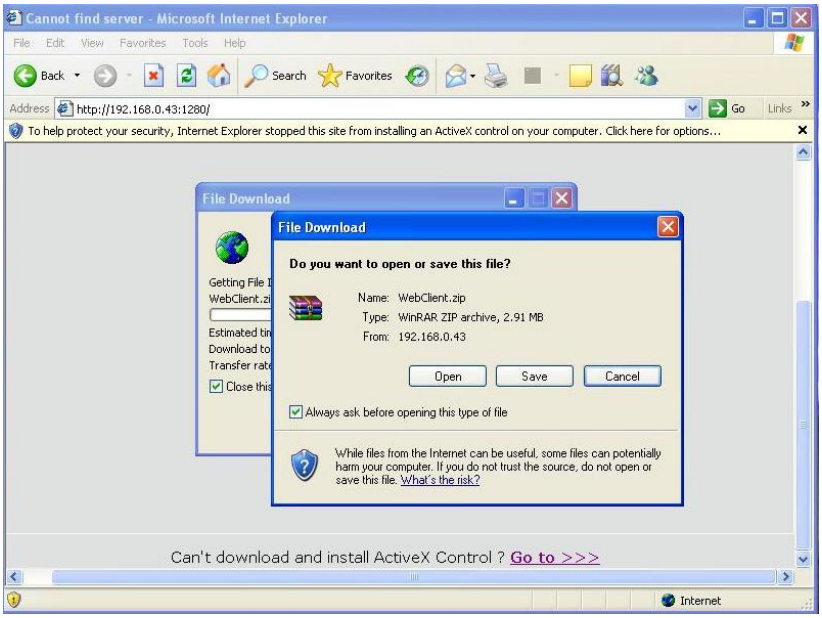
Enlarge picture

Delete current file or delete all files

Chapter5 IE client

The client user can view video of Hybrid NDVR Server through Internet Explorer, The default web server port is 80;if user changes it to another port, user should add this port number after domain name when visit the video of Server through Internet Explorer. E.g.: http://192.168.0.119:1280.

If you can't download and install Activex automatically, you can download webclient.zip manually via clicking "Go to". Then, the following interface will be shown:


Cannot find server - Microsoft Internet Explorer
Address http://192.168.0.43:1280/
To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer. Click here for options...
File Download
File Download
Do you want to open or save this file?
Name: WebClient.zip
Type: WinRAR ZIP archive, 2.91 MB
From: 192.168.0.43
Open
Save
Cancel
Always ask before opening this type of file
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. What's the risk?
Can't download and install ActiveX Control ? Go to >>>
Internet

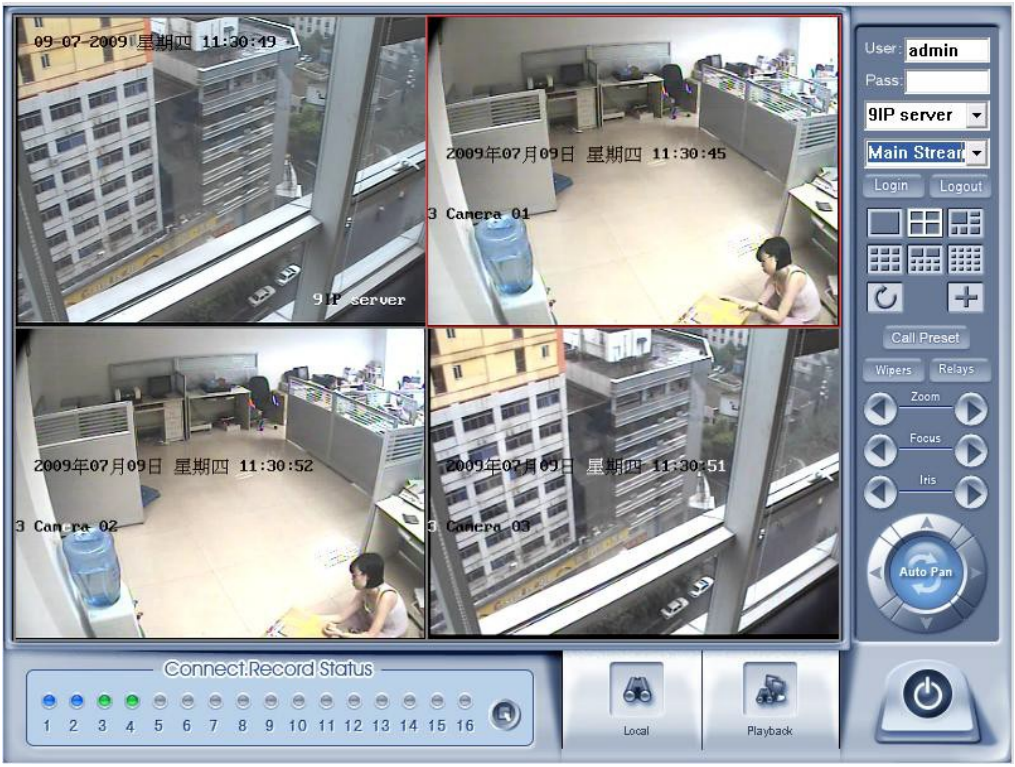
Save and install webclient on your PC, so that you can install ActiveX successfully later.

5.1 Functions of IE Client

1. Video display and video storage;
2. Audio input;
3. Searching and playback video image locally or remotely;
4. Control PTZ and speed demo remotely.

5.2 Main Interface

When you connect to the DVR server successfully, you need to input valid User ID and password in right up of the interface to acquire rights to play video and other operations. If you can't connect it to the DVR check your password and username.



5.2.1 Connection Operations

Press Login will connect the Hybrid NDVR Server's camera video from Camera01 and press Logout will disconnect all connections. If Hybrid NDVR Server's channel is more than channels that you selected partition mode, you can use button to display Hybrid NDVR Server's video in sequence. Pressing button will switch full screen mode and Right-Single-Click image can back to normal mode.

5.2.2 Connection / Record Status

This icon indicates the current connection and their record status:
Gray: Not connected;
Navy blue: Connected with no recording;
Green: Connected with recording.

You can change the record status by pressing corresponding number button or change status of all connections at the same time by pressing button.

5.2.3 Partition Mode

You can set the partition mode by pressing corresponding button on the right of main interface. It has follow partition modes:

——1 partition mode;

——4 partition mode;

——6 partition mode;

——9 partition mode;

——10 partition mode;

——16 partition mode.

5.2.4 PTZ Control

Most functions of PTZ control are same as PTZ Control Panel in Hybrid NDVR Server.

Press

button to shut down the IE Client.

5.3 Local Search

Press

button to enter local search:

5.3.1 Display Setup and Data Information

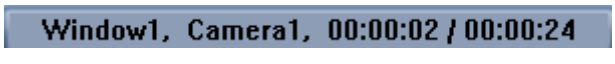
In this area, you can select display partition mode, date, video channel and its video file named according to time.

5.3.2 Playing Operation Area

In this area, you can operate video playing:

【**Video-playing time adjustment**】Press and drag slider bar to adjust video-playing time

【**Information display panel**】Display current window name, camera name and record data information.



【**Playing-control buttons**】 : Play, Pause, Stop

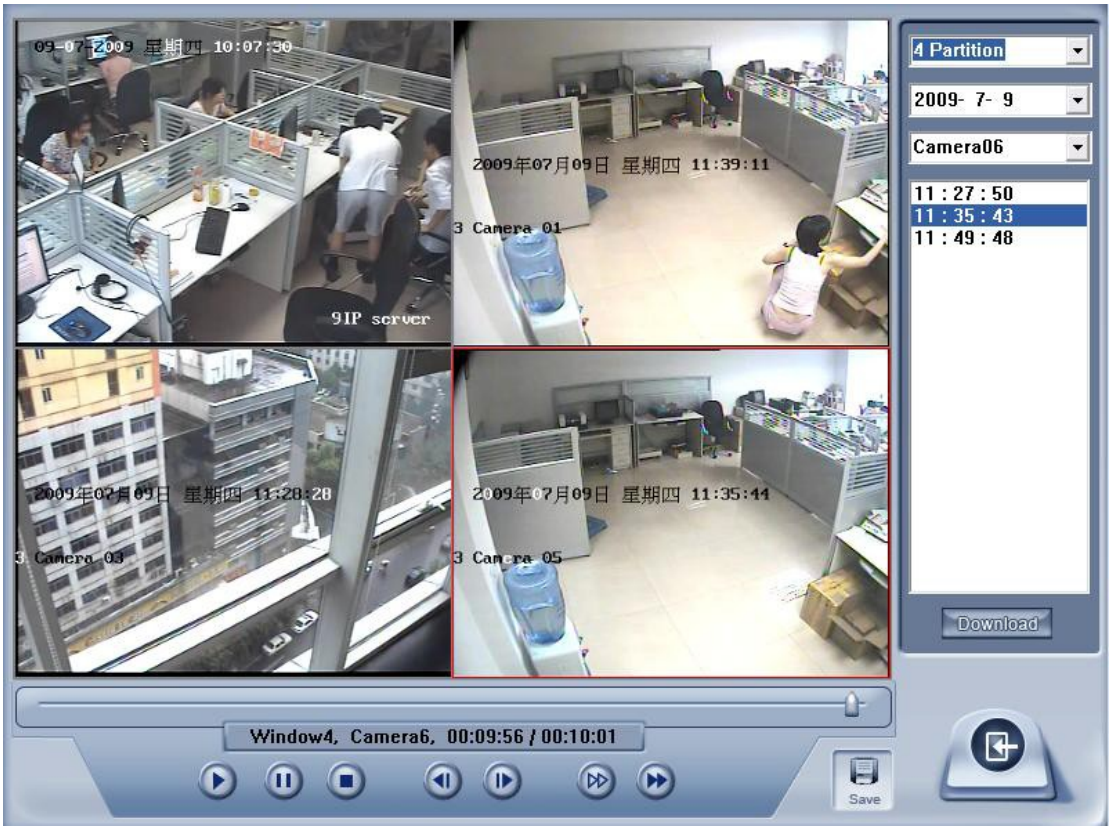
【**Single frame play**】 : Previous frame, next frame

【**Playing speed control**】 : Slowly play : Fast Forward play

5.4 Remote Search

Press Playback to enter remote search.

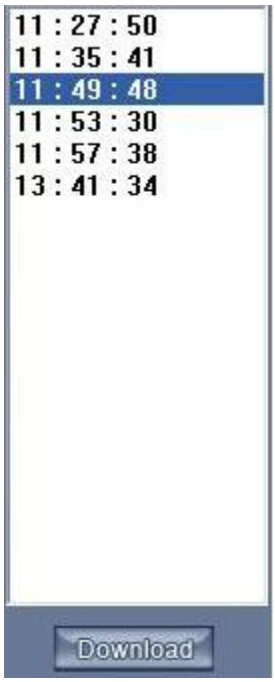
Most functions and operations of Remote search are same as Local Search; different feature is that remote search added download feature.



When you playback remotely, you click Save button to save video of current channel you selected. When done, the system will ask for the save path.

5.4.1 Fast Download Record Data

In the playback mode, select one camera that has record data, open file list panel, select one record data file, and click Download button, the selected data file will download fast.



When user use IE client to visit Hybrid NDVR server, If connect successfully, there will be four partitions blue window. If connect unsuccessfully, the reasons possibly are:

1. The Web server port has been used by other programs;
2. Your computer didn't download the player plug normally. The reason may be the jurisdiction of your computer is too high, or your computer has plug filter.

Chapter6 Mobile Client

Mobile clients in our software now support different kinds of mobile phones, such as Android, BlackBerry and iPhone, etc. You can view any cameras, including board card cameras and IP cameras supported by our software, even megapixel cameras.

For BlackBerry, if you can't connect to the Hybrid NDVR, please check your setup of APN. Try the following steps: Option->Advanced option->TCP->APN:

1. Hit the menu button and select Setup;
2. Scroll down to "Enable Personal setting" and check that box;
3. In APN field enter the name of your APN.

For how to use Android phones, please refer to the manual named Mobile client Android.

6.1 Recommended Mobile Phone Requirements

1. Before you run Mobile Client, please check if your mobile phone supports JAVA and comply with following applicable standards:

   CLDC version: CLDC-1.0

   MIDP version: MIDP-2.0
2. Your mobile telephone should have GPRS or CDMA to transport data.
3. Set Internet as the access point of your phone call.
4. When you want to view some megapixel cameras, you will need a phone with a large amount of memory.
5. Select “Enable” to allow the PDA to connect With Hybrid NDVR server in the Network Setup of the Hybrid NDVR system.

GPRS is charged by data flow, so shut down the Mobile Hybrid NDVR application if you do not need view cameras.

6.2 Download Software

You have following methods to download our mobile client software:

1. Download through wireless technology (in Wireless LAN) such as Blue tooth, infrared.
2. Copy mobile client software to phone directly through data cable.
3. Download mobile client software through OTA (in WAN), it will describe as follow:

Enter “http://IP:PORT/ MobileDvr.jar (and another is MobileDvr.jad)” in the address bar of the mobile telephone internet explorer to download the setup package of the Mobile Client.

Note:

IP: the IP address of the Hybrid NDVR server.

PORT: the Port of the IE client of the Hybrid NDVR server.

When you download mobile client software on WAN, you must be sure that your mobile phone connect with Internet correctly.

When you are not sure which program you should download to your phone, you can only enter http://IP: port/mobiledvr, then, you will enter the following interface

Select one and then enter it. When you are using BlackBerry, you would better select the “BlackBerry.jad”. If you chosen “MobileDvr.jad”, the image quality will be less.

6.3 Install and Connect

6.3.1 Installation

You can install the mobile client as install java games in your smart phone, install mobile client in your smart phone directly (downloaded the program in

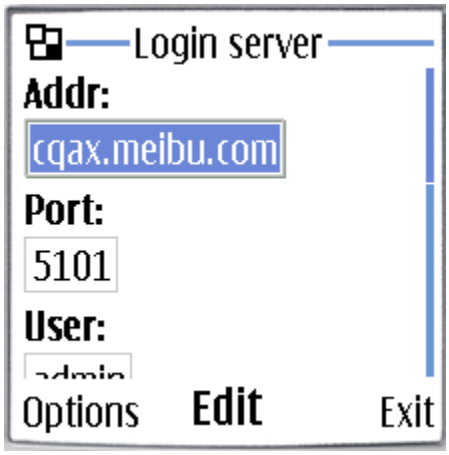
WAN or LAN) or use the application supplied by the manufacture of your smart phone to install mobile client.

6.3.2 Connection

After you installed mobile client in your smart phone, you should be sure that your smart phone connect with Internet correctly. Currently, mobile providers support WAP and WEB access point, mobile client must use Internet as access point (AP) to access Hybrid NDVR Server remotely.

6.4 Login Interface

After you downloaded and installed the MobileDvr software, you can run it on your mobile phone to enter the login interface.



【Adder】Fill the IP address or domain name of the Hybrid NDVR server.

【Port】Fill the port through which connects to Hybrid NDVR Server.

【User】/【Pass】Fill the valid user with its password to visit server from MobileDvr. And the server has enabled rights management, login user ID and password from client will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

Press ***Login*** button to connect with the Hybrid NDVR server.

6.5 Camera List

The MobileDVR will enter the Camera List after you connect with the Hybrid NDVR server successfully.

When the camera you want to view is selected, click “Options” and then select “Preview” to enter the preview GUI.

6.6 PTZ Control

Press the “Options” button and select the “PTZ” button to enter the PTZ control interface.

【Orientation control】: Select the button and press “OK”,it will change into . After that, by pressing and holding the up, down, right and left buttons, the PTZ camera will move up, down, right and left.

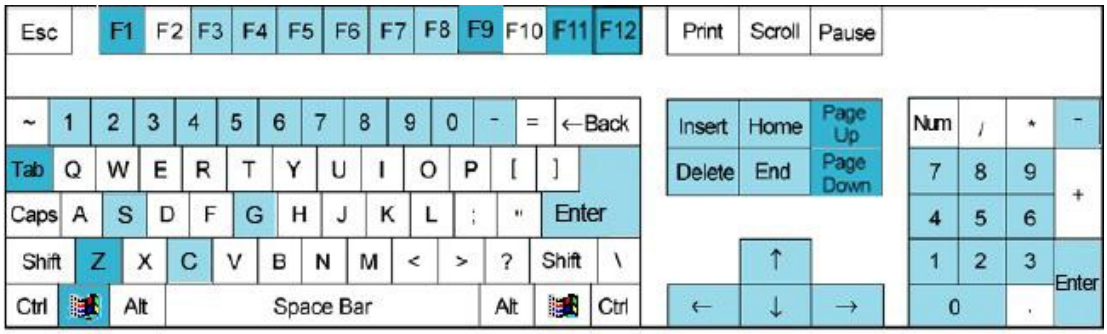
【Zoom + / Zoom -】: Control the zoom function of the PTZ camera.

【Focus+/ Focus -】: Overrides the auto-focus setup of the PTZ camera, adjust focus the image.

【Iris on/off】: Overrides the PTZ cameras auto-iris and brighten or darken the image.

Appendix A: Fast Key Reference

Please refer to Shortcuts Keyboard Setup.


Esc
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
Print Scroll Pause
~ 1 2 3 4 5 6 7 8 9 0 - = ←Back
Tab Q W E R T Y U I O P [ ]
Caps A S D F G H J K L ; " Enter
Shift Z X C V B N M < > ? Shift \
Ctrl Alt Space Bar Alt Ctrl
Insert Home Page Up
Delete End Page Down
Num / * -
7 8 9 +
4 5 6
1 2 3 Enter
0 .

This color key denotes PTZ control.

This color key is other function control.

PTZ control:

Key	Function
↑	Up(in the status of preview for PTZ control)
	Play in fast speed (in the status of instant playback and review playback)
↓	Down(in the status of preview for PTZ control)
	Play in slow speed (in the status of instant playback and review playback)
←	Left(in the status of preview for PTZ control)
	Play last frame(when pause in the status of instant playback)
	Play again(in play condition of review playback)
	Play last frame(in pause condition of review playback)
→	Right(in the status of preview for PTZ control)
	Play next frame(in the status of instant playback)
	Play in normal speed(in play condition of review playback)

	Play next frame((in pause condition of review playback)
Home	Zoom-
End	Zoom+
Insert	Focus-
Delete	Focus+
C、—、 Num0-9G、Enter	Presets Control Operation Call preset
C、—、 Num0-9	Presets Control Operation

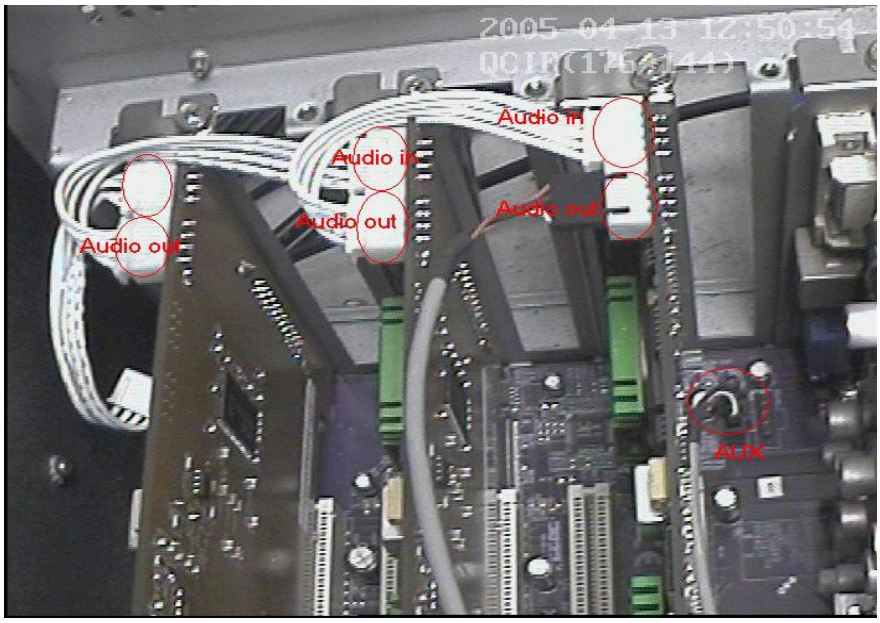
Other controls:

Key	Function
F1	System Help
Tab	Switch the camera channel
Page Down	Next screen
Page UP	Previous screen
F9	All cameras recording 30 Sec emergency
F11	Zoom in/out the single camera view
F12	Switch to Full screen mode (Equivalent to pressing space key except Instant Playback mode)
Ctrl + 0	Enter playback
Ctrl + 1-9	Instant playback minutes
Shift + 1-8	Select screen partition 1,4,9,16,25,36,49,64
WIN+ Z	Minimize the Main System window

Appendix B: Audio Preview

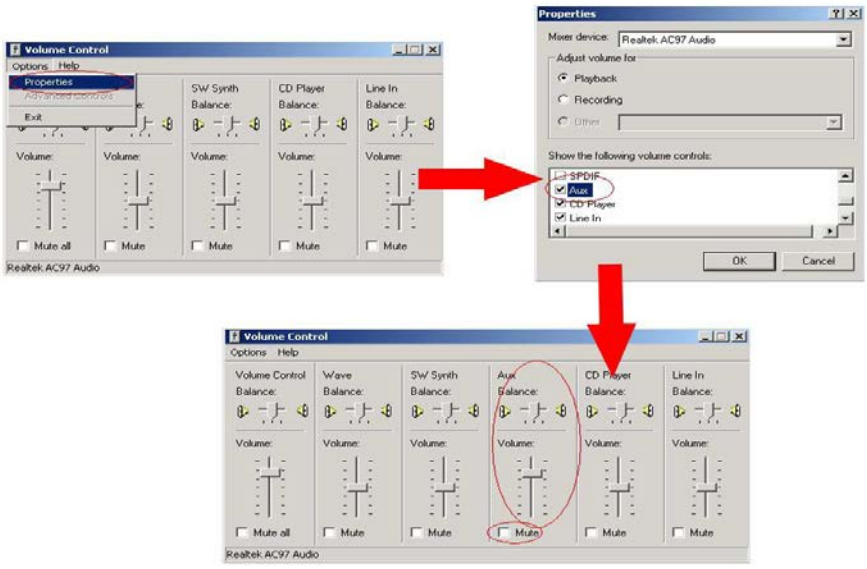
EW Series Card Audio Preview

To 40 series card, please connect the card use the cable in the box as follows:



Note:

Sometimes there is no preview sound, Solution: double click the volume control of in the taskbar, open the properties dialog box, and check AUX control.



Note:

To EW 42 series card, there is no need to connect the “audio in” and “audio out” cable. However, a sound pick-up is necessary if you want to hear and record the sound, no matter what’s the type of the card.

MT Series Card Audio Preview

The connection is same as EW 40 series card.

To audio preview and record of IP cameras, please refer to page 76.